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A NEW CATECHISM

We baptise the twentieth century in the name of Peace, Liberty, and Progress !
We christen her -the People's Century. We ask of the new century a Religion
without superstition ; Politics without war ; Science and the arts without
materialism ; and wealth without misery or wrong !

A NEW CATECHISM

BY

M. M. MANGASARIAN,

Lecturer of Independent Religious Society of Chicago

"Our growing thought makes growing revelation."--GEORGE ELIOT.

"Believe it, my good friends, to love truth for truth's sake is the principal part of human perfection in this world and the seed-plot of all other virtues."--LOCKE.

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INTRODUCTION

BY GEORGE JACOB HOLYOAKE

THE author of this book, M. M. Mangasarian—an Armenian by descent—has the distinction of being the Lecturer of the Independent Religious Society of Chicago. He is said to enchant by his addresses a weekly concourse of some two thousand persons—the largest congregation, having regard to quality, known in any country. We have larger religious congregations in England, but they are swelled by the children of Dogma. Mr. Mangasarian's audiences are composed of the children of Reason, of spiritual and ethical inquirers—a much rarer race. The Open Court Publishing Company, of the lively and tumultuous city of Chicago, has issued several editions of this book for the convenience of American readers. The Rationalist Press Association has, I think, usefully resolved to give to the readers of Great Britain an equal opportunity of possessing this new and original Catechism.

The most difficult form of literary composition, which has the quality of interesting the reader, is undoubtedly a Catechism. The author must be an expert diver in the deep sea of polemical thought to recover essential facts, hidden in those depths. A Catechism is a short and easy method of obtaining definite knowledge. There are only two persons on the stage—the Questioner and the Answerer. A good Questioner is a distinct creation. He must know what information to ask for. If he be irrelevant, he is useless; if he be vague, he is impracticable. The Answerer must be master of the subject investigated, and definite in expression. "The New Catechism" has these qualities. It is the boldest, the brightest, the most varied and informing of any

work of the kind extant. The principal fields of human knowledge, which the Churches have fenced round with supernatural terrors, the Catechism breaks into, cherishing what is fair and showing what has been deformed. The notes, of which there are many, referring both to ancient and contemporary sources, are as striking as the text. The book is a cyclopædia of theology and reason in a nutshell.

The Questioning Spirit, whose curiosity has for its wholesome object the verification of truth, is the most effectual instrument of knowledge available to mankind. A well-directed question is like a pickaxe—it liberates the gold from the superincumbent quartz. Whole systems of error sometimes fall to the ground from the force of unanswerable questions. All error has contradiction in it, which is revealed by a relevant inquiry, when an artillery of counter assertions might not disclose it. Arguments may be evaded, but a fair and pertinent question creates no animosity, and must be answered, since silence is a confession of error or of ignorance.

The author of this Catechism shows good judgment in devising questions. Answers without parade or pretension come quickly and decisively, often including unforeseen information, which has the attraction of surprise. The answers do not drag along like a heavily-laden team, but flash like a message of wireless telegraphy, unhampered, unhindered, over the ocean of new thought. As suits the celerity of the age, these answers are expressed with brevity. Prodigality in words impoverishes the giver and depraves the taste of the receiver. Mr. Mangasarian, like Phocion, conquers with few men and convinces with few words. There is no better definition, says Landor, of a great captain or a great teacher.

Eastern Lodge, Brighton.

October 20th, 1902.

AUTHOR'S PREFACE

THE old Catechisms which were imposed upon us in our youth—when our intelligence could not defend itself against them—no longer command our respect.

They have become mildewed with neglect. The times in which they were conceived and composed are dead—quite dead!

A New Catechism to express the thoughts of men and women and children living in those new times is needed.

This is a modest effort in that direction.

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College Row. Calcutta.

A NEW CATECHISM

CHAPTER I.

REASON AND REVELATION

1. Q. What is religion?
A. Faith in the truth.¹
2. Q. Define truth.
A. It is the most perfect knowledge attainable concerning any given question.²
3. Q. What is meant by "faith in the truth"?
A. Confidence that such knowledge may be depended upon for the highest ends of life.
4. Q. How can one demonstrate his faith in the truth?
A. By lifting his conduct to the height of his clearest vision or knowledge.
5. Q. How may truth, or the "most perfect knowledge," be acquired?
A. Through experience and study.
6. Q. Is there no other way?
A. There is not.
7. Q. Have you given me the generally accepted definition of religion?
A. No. According to popular opinion religion is what a man believes concerning supernatural beings and what he does to obtain their favour.
8. Q. What is the supernatural?
A. Whatever is at present inexplicable by the known laws of nature.

¹ Truth is defined by Thomas Aquinas as "*adaequatio intellectus et rei.*" Kirchhoff defines knowledge as a "description of facts." (See Carus's *Primer of Philosophy*, pp. 37 and 46.)

² Knowledge reveals things as they are; hence, truth, which is the highest knowledge, is the reflection of reality. "Wisdom," says Schopenhauer, "is not merely theoretical, but also practical perfection; it is the ultimate true cognition of all things in mass and in detail, which has so penetrated man's being that it appears as the guide of all his actions" (Zimmern's *Life of Schopenhauer*).

9. Q. What is the proper attitude of mind towards all such questions?
A. We should not quarrel about them, but permit them to be discussed freely.
10. Q. Does not "revelation" or the "word of God" teach us many things which we could not otherwise know?
A. As there are many "revelations," we should first decide which one we have reference to.
11. Q. Name some of them.
A. The Zoroastrian; Brahman; Buddhist; Jewish; Christian; Mohammedan; Mormon———
12. Q. Do all these "revelations" or bibles claim a divine origin?
A. They do.
13. Q. Do they respect one another?
A. On the contrary, each condemns the other as unreliable or incomplete.
14. Q. How?
A. Buddha is reported to have said: "There is no one else like unto me on earth or in heaven. I alone am the perfect Buddha."¹
15. Q. Give another example.
A. Jesus has been quoted as saying: "I am the door of the sheep—all that came before me are *thieves* and *robbers*.No one cometh unto the father but by me."²
16. Q. What would be considered a stronger proof than these?
A. The fact that the disciples of each are trying to convert those of the others.³
17. Q. What does it mean to "convert"?
A. To make others think and believe precisely as we do.
18. Q. What is the motive?
A. Among others, this, that unless people believe as we do they shall be damned forever.
19. Q. Which of these different Revelations is the true one?
A. Not one of them is either wholly true or wholly false.

¹ Oldenberg, *Buddha*.

² Gospel of John. It is possible that neither Jesus nor Buddha ever expressed these narrow sentiments.

³ "This true Catholic faith out of which no one can be saved" (from the creed of Pope Pius IV.). "I detest every.....sect opposed to the holy Catholic and Apostolic Roman Church" (words used for the reception of Protestants into the Catholic Church—*Catholic Belief*, p. 254). This same spirit prevails in the standard Protestant creeds. (See chapter on Prayer and Salvation.)

20. Q. How are we to know what is true and what is false in them?
A. By using our best judgment.
21. Q. Would not that imply that reason was a higher authority than Revelation?
A. Unquestionably.
22. Q. If we possess the highest authority within ourselves, do we still need a Revelation?
A. We do not; for a Revelation must approve itself to our reason before it can be accepted.
23. Q. If you believed a certain book to contain the "word of God," would you not obey it implicitly whether your reason approved of it or not?
A. No.
24. Q. And why?
A. If I obeyed it blindly, my obedience would have no merit; if under compulsion, it would not be voluntary obedience. But if I obey it intelligently and with the approval of my reason, then it would be my reason and not the book that I would be obeying.
25. Q. Give an illustration.
A. If any of the "bibles" of the world were to teach, for instance, that the earth was flat, we could not believe them, because our own experience and study teach us the very opposite.
26. Q. If, however, "revelation" should command you to do what your reason condemned as *wrong*, would you not obey the "word of God" rather than your reason?
A. If I do what my best judgment forbids, I cannot be a moral being.
27. Q. Is it not possible to regard as true what reason recognises to be wrong?
A. It is impossible. Reason is absolute sovereign. *No power can compel her to assume as true what she has declared to be untrue.*
28. Q. But do any of these "bibles" really teach things contrary to reason?
A. They certainly do.
29. Q. What, for instance?
A. The creation story.
30. Q. Give another example.
A. The deluge.

31. Q. Give one more example.
A. The fall of man.
32. Q. What do we know to-day as to these questions?
A. We know for sure that there never was any "fall of man," or "universal deluge," or "creation," such as these ancient bibles announce.
33. Q. What other mistakes do these bibles make?
A. They make many other mistakes in history and science; they contradict themselves in many places, and in more than one instance they teach what we know to be wicked.¹
34. Q. How do you account for these mistakes in the bibles?
A. It is human to err.
35. Q. Are they all the work of man?
A. They are nothing more than the record of the wisdom and folly, the virtues and vices, of man.
36. Q. What are we to do under these circumstances?
A. Follow the best light we have.
37. Q. What is that?
A. Our reason.
38. Q. But may not our reason lead us into error?
A. Yes.
39. Q. Why follow it then?
A. Because we have nothing better, and it is our duty to follow the best light we possess.²
40. Q. Why do people attach so great an importance to Revelation?
A. For fear that without a Revelation there would be no morality.
41. Q. Is there any reason for such a fear?
A. No. In the name of Revelation, or the "Word of God," many of the worst crimes have been perpetrated,³ while

¹ "They contradict each other's chronology, genealogy, geography; and whole substance of both natural and supernatural events; they stand at variance with authentic secular history" (James Martineau, *Essays, Reviews, etc.*).

² "Lost at nightfall in a forest, I have but a feeble light to guide me. A stranger happens along: 'Blow out your candle,' he says, 'and you will see your way the better.' That stranger is a theologian" (Diderot). "All religions have demanded the sacrifice of reason. The religion of the future will make that terrible sacrifice unnecessary" (consult the author's pamphlet on *Religion of the Future*, p. 6).

³ Theodore de Beza, the successor of John Calvin, as leader of the Reformed Church, of Geneva, publicly praised Poltrote, the assassin of Francis, a Catholic Prince, and promised him a luminous crown in heaven. John Calvin himself, in the name of the "Word of God," condemned Servetus to the flames. The assassin

on the other hand not a few of the world's noblest men knew nothing of a Revelation.¹

42. Q. Has there always been a Revelation in the world?
A. No; it is believed that it was only given some five thousand years ago.
43. Q. Was there no morality in the world before that date?
A. There was, undoubtedly; for men, societies, and nations existed long before then.
44. Q. Was a Revelation given to each and every nation on earth?
A. No; the general belief is that the Jews were the only people who were favoured with a Revelation.
45. Q. Were the Jews then the only moral people of the world?
A. By no means; the Greeks, who had no Revelation, were the most advanced people of antiquity.
46. Q. What does that signify?
A. That morality is independent of a Revelation.
47. Q. Is it well to teach that morality is impossible without a Revelation?
A. It is not; because, in the first place, it would not be true; and because, in the second place, people, in losing faith in Revelation, would also lose faith in the right.
48. Q. How may faith in the right become permanent?
A. By loving and doing the right for its own sake.
49. Q. What are the other motives to right conduct?
A. The strongest are those which arise from a craving for self-esteem, the altruistic impulse,² and the sense of duty.

of Henry the Third, of France, received almost divine honours at the hands of the Catholics. His name was introduced into the litanies of the Church, his portrait exhibited on the holy altar, and his dastardly deed likened to the holy mysteries of religion. The mother of Clement, the assassin, came to Paris to demand a reward for the crime of her son, and the priests took up a collection for her and carried her in a procession as the blessed woman who had given birth to the murderer of a king who favoured the heretics (comp. *Esprit de la Ligue, Estoire*, vol. iii., p. 94; also Jules Simon, *La Liberté de Conscience*, pp. 86, 87). Many similar examples could easily be given to show that a revelation has, instead of curbing the passions, frequently made them more violent. All the bloodshed recorded in the Old Testament was committed with a "And the Lord spake unto Moses, saying, etc."

¹ Socrates, Phocion, Epaminondas, Epictetus, Marcus Aurelius, and many others of pagan times. Of Chilon, one of the seven sages of Greece, it is recorded that at his deathbed he summoned his friends, to whom he declared that in a long life he could recall but a single act that saddened his dying hour. It was that, in an unguarded hour, he had permitted friendship to obscure his sense of justice.

² To respect ourselves we must respect humanity, of which we are a part, and when we confer value upon ourselves we confer value also upon our race.

50. Q. What is meant by "the sense of duty"?
- A. The feeling that we ought to do those things which *increase* life and make it beautiful, and to refrain from those things which bring shame and misery and wrong in their train.
51. Q. Is it always pleasant to do our duty?
- A. The old religions teach that duty is "a cross," and that to be good is to sacrifice ourselves.
52. Q. What is the consequence of such teaching?
- A. It makes people afraid of the good life, and associates it in their mind with gloom and depression.
53. Q. What else?
- A. It makes people suppose that only the wicked can be happy in this world.
54. Q. What is the right conception of duty?
- A. That it is not "a cross," or a self-sacrifice, but harmony, beauty, and joy. We sacrifice ourselves, and make life "a cross," when we disobey the laws¹ of the body and the mind.

¹ For a definition of law consult concluding chapter.

CHAPTER II.

THE CHRISTIAN REVELATION

1. Q. Which of the "Revelations" you have mentioned has exerted the greatest influence in the world?
A. Without doubt, the Christian.
2. Q. How?
A. It has helped to shape the history of the first-class nations of the world.
3. Q. Has this influence been good or bad?
A. It has been both good and bad.
4. Q. Where is the Christian Revelation to be found?
A. In a book called the "Holy Bible," and consisting of the Old and New Testaments.
5. Q. Give me the most accurate information concerning the "Holy Bible."
A. It is a collection of sixty-six books, written by different authors at different periods in different languages and in different countries of the world.
6. Q. How is it, then, that we have them all in one volume?
A. They were collected gradually into one volume by religious synods and councils.
7. Q. Which are the oldest books in the Bible?
A. Those contained in the Old Testament—about thirty-nine in number.
8. Q. What do these books write about?
A. The rise and progress of the Jews, their laws and manners, their wars and persecutions.
9. Q. Is it any different from the history of any other primitive people?
A. Not materially.
10. Q. Does it give us any intellectual or moral truths at first hand?
A. No. Truth or knowledge is a conquest, not a Revelation.

11. Q. Why, then, is the history of the Jews regarded as the "word of God" ?
A. There is absolutely no reason why the history of any ancient or modern people should be so regarded.
12. Q. How many books are there in the New Testament ?
A. Twenty-seven—four Gospels ; one Acts of the Apostles ; twenty-one Letters ; and one dream or vision, called the Revelation of John.
13. Q. Has the New Testament always contained the same number of books ?
A. No. It was not until about one hundred and fifty years after the death of Jesus that a collection of writings was accepted as the new covenant—"testament" is probably a mis-translation.
14. Q. Then the "Revelation" was not taken down at the time it was given ?
A. No.
15. Q. Nor by the people to whom it was given ?
A. No. With the exception of the four Letters of Paul and one of James, we have absolutely no knowledge as to the authorship of the remaining books of the New Testament.
16. Q. How, then, do you explain the titles, "The Gospel, according to Matthew," "Luke," "Mark," etc. ?
A. These titles represent the opinions of the editors or translators. It is very probable that some compiler culled from a mass of notes—memorabilia—the reports about Jesus, and published them under the name of an apostle to give the work greater authority. The word "according," at the head of each Gospel, lends colour to this theory.
17. Q. Why did not the apostles write their own message ?
A. They did not consider it worth while, as they expected the world would end in their day.
18. Q. How early was the first attempt to commit to writing the sayings of Jesus ?
A. About the time of the destruction of Jerusalem by the Romans, in the year 70 A.D.
19. Q. What effect did the destruction of Jerusalem have upon the followers of Jesus ?
A. It put an end to their hope of the immediate return of the Messiah.

20. Q. Are the four Gospels the only biographies of Jesus that have ever appeared ?
A. No, there have been many others.¹
21. Q. Why are they not all in the Bible ?
A. They are excluded as being apocryphal.²
22. Q. What is an apocryphal Gospel ?
A. One that has not received the required number of votes, in ecclesiastical councils, to be considered inspired.
23. Q. Have these "apocryphal" Gospels always been excluded from the New Testament ?
A. No. The "Shepherd of Hermas" and probably others were at one time included.
24. Q. In what language were the books of the Bible written ?
A. In Hebrew, Greek, and, possibly, also Aramaic.
25. Q. Are the original manuscripts from which our English Bible is said to have been translated still in existence ?
A. They are not.
26. Q. How do we know, then, that the translation is accurate ?
A. We have no way of knowing, as we cannot compare the translation with the original.³
27. Q. If the original manuscripts are lost, what is it they have translated into English ?
A. The supposed copies of the lost originals.
28. Q. Do we know whether these copies are reliable ?
A. No.
29. Q. When were these copies produced ?
A. Possibly hundreds of years after the originals had been lost.
30. Q. How many of these "copies" are there in existence ?
A. A very large number.
31. Q. Do they always agree with one another ?
A. We know that they do not.
32. Q. How did the translators overcome the difficulty presented by so many contradictory readings ?
A. By finally voting on the question as to which should be accepted and which rejected.

¹ The Gospel of the Infancy, Gospel of Nicodemus, of Hermas, of James the Lesser, of Thomas the Israelite ; Gospel of the Nativity of Mary and the Childhood of Jesus, and the Gospels attributed to Jesus Christ, the Virgin, and the Apostles.

² From two Greek words meaning "concealed, hidden away."

³ Dionysius, of Corinth, in the second century (170 A.D.), complains that the "Scriptures of the Lord are falsified."

83. Q. If the original manuscripts are lost, how do you account for the words, "Translated out of the original Greek," on the title-page of the New Testament?
- A. The revisers have finally dropped the word *original* from the title-page, not thinking it honest to keep it there any longer.

. CHAPTER III.

THE CANON OF THE BIBLE

1. Q. What is meant by the "canon" of the Bible?
A. "Canon" is a Greek word meaning "rule," and is used to qualify the collection or catalogue of books which ecclesiastical councils have declared to be of divine authority in matters of faith and practice.
2. Q. Has the "canon" of the Bible remained the same from the beginning?
A. No. The early Christians, being mostly Jews, regarded only the Old Testament as the authoritative word of God.¹
3. Q. What do the apostolic fathers² say on this subject?
A. We infer from their writings that they did not regard the New Testament as of equal authority with the Old.
4. Q. When did the New Testament come to be placed on a level with the Old Testament?
A. The schism between the Jewish and Gentile Christians gave rise to the idea of a Catholic Church³ possessing authority to decide all matters pertaining to doctrine and practice. To realise this idea it was necessary to have a generally accepted "word of God." The demand in time created the supply, and a "canon" of the New Testament was the result.
5. Q. How early is the first reference to such a "canon"?
A. The latter half of the second century.⁴

¹ After the Old Testament, tradition was the chief source of knowledge in the early Church.

² Hermas, Barnabas, Papias, Polycarp, Ignatius, Justin, and Clement have scarcely any express citation from the New Testament. They apply the word "Scriptures" only to the Old Testament (see Davidson, *Introduction*, etc.). Hegesippus, writing in the year 180 A.D., appeals only to the "Old Testament and the Lord" as the source of all authority.

³ "The formation of a Catholic Church and of a canon was simultaneous" (Davidson).

⁴ Fisher, *Christian Doctrine*, p. 72.

6. Q. What were the books contained in the earliest "canons"?
A. The Christian fathers Justin, Tertullian, Irenæus, Origen,¹ and many others, give each a different list.
7. Q. What was the canon of Muratori?
A. It appeared about the year 170 A.D., and did not contain Paul's Epistle to the Hebrews, nor those of Peter, 1 John, and James.
8. Q. What was the canon of the Emperor Constantine?
A. It was produced in the year 352 A.D., and contained the present number of books except the Book of Revelation.
9. Q. What was the Syrian "canon"?
A. It lacked the Second Epistle of Peter, Third of John, the Epistle of Jude, and the Book of Revelation.
10. Q. What other books in the Bible have been questioned?
A. The Epistles of Paul, the Epistle of James, the Book of the Acts of the Apostles; and Job,² Esther, and others, in the Old Testament.
11. Q. What was Luther's Bible?
A. Luther did not regard the Book of Revelation and the Epistle of James as a part of God's word.
12. Q. What is the position of the modern creeds on the question of the "canon"?
A. Article VI. of the 39 Articles of the Church of England reads: "In the name of Holy Scriptures we do understand those canonical books of the Old and New Testaments of whose authority was never any doubt in the Church."³ But this is both obscure and misleading, as there is scarcely a book in the New Testament the authenticity of which has not been questioned in the Church.
13. Q. Does the Catholic Bible agree in all respects with the Protestant?
A. No, the Catholic Bible contains seventy-two "inspired" books.
14. Q. How is that?
A. The Catholics accept as inspired many of those which the Protestants reject as apocryphal.

¹ Origen speaks of three classes of Scriptures: the authentic, the unauthentic, and middle class. In the middle class he included James, Jude, 2nd Peter, and 3rd John, which are in our Bible.

² Luther rejected the Book of Job as being no more than "a sheer *argumentum fabulæ*."

³ The position of the other Christian denominations is very much the same.

15. Q. How does the Catholic Church treat those who deny inspiration to these apocryphal books?
A. The Council of Trent¹ decreed a curse against them.
16. Q. When was the Catholic Bible translated?
A. It is claimed to have been translated by St. Jerome in the fourth century.
17. Q. What was this translation called?
A. The Latin Vulgate.²
18. Q. Has the Catholic Bible been revised at all?
A. Yes, by the Popes Sixtus V. and Clement VIII.
19. Q. When was the present Protestant translation of the Bible made?
A. In 1611, under King James of England.
20. Q. Has it been revised since?
A. Yes, in 1884 a new translation was produced.
21. Q. Does it differ at all from the King James version?
A. It certainly does.
22. Q. Are the variations important?
A. Some are very important.
23. Q. What are they?
A. The verse in 1 John v. 7: "For there are three that bear record in heaven—the Father, the Son, and the Holy Ghost; and these three are one." This verse, which has been quoted in defence of the doctrine of the Trinity, does not appear in the new version.
24. Q. What else?
A. The notes which have been inserted in the margin of the new version throw doubt upon many passages hitherto accepted as of unquestionable authority.
25. Q. Give an example.
A. In the last chapter of the Gospel according to Mark a note in the margin reads: "The two oldest Greek manuscripts and some other authorities omit from verse 9 to the end."³ Another note reads: "Some other authorities have a different ending to the Gospel."
26. Q. Are these missing verses important?
A. Yes. They relate to the resurrection and ascension of Jesus, and, above all, to the doctrine of eternal damnation.

¹ One of the infallible councils (see Introduction to Catholic Bible, Douay version).

² An English version of this was made in 1609.

³ Missing eleven verses.

27. Q. What may also be inferred from the marginal words, "some other authorities have a different ending to the Gospel" ?
- A. That the translators had many manuscripts from which to select "the word of God."¹
28. Q. Are these the only translations that have been made ?
- A. No. Many scholars have made independent translations, believing the authorised versions to be inaccurate.
29. Q. Do Catholics and Protestants regard the Bible in the same light ?
- A. They do not.
30. Q. Explain the difference.
- A. The Catholics hold that it is the Church that gives to the "word of God" its authority.²
31. Q. What is their argument ?
- A. They quote St. Augustine, who confessed that "there were more things in the Bible he did not understand than things he did understand." If so great a doctor of the Church could not understand the "word of God" without an infallible interpreter, say the Catholics, much less can ordinary mortals.³
32. Q. Do Catholics permit private interpretation of the Bible ?
- A. They do not.
33. Q. Do they permit the people to read the Bible ?
- A. Only with approval of their Bishop.⁴
34. Q. What is the Protestant doctrine of the Bible ?
- A. That it is the infallible "word of God," which each must read and interpret for himself.
35. Q. How can fallible man interpret the Bible infallibly ?
- A. It is claimed that the Holy Spirit reveals the true meaning of the Scriptures to all.

¹ The American committee, failing to have their recommendations accepted by the English, had the same published as an Appendix to the Revision.... Speaking of the authorship of one of the books, Justin Martyr loosely remarks, "A man among us named John wrote it." And Luke prefaces his Gospel with the significant words: "Forasmuch as many have taken in hand to set forth, etc., it seemed good to me to write also" (Luke i. 1-3). Is this the infallible language of inspiration ?

² "We Catholics... not only would not, but simply could not, believe the Bible to be the inspired word of God unless we had the authority of the Church for it" (Rev. John Scully).

³ *Catholic Belief*, by the Rev. Louis S. Lambert, chap. viii.

⁴ "To guard against error, it was judged necessary to forbid the reading of Scriptures in the vulgar languages without the permission of spiritual guides" (Catholic Bible, Pref.).

36. Q. Does the Holy Spirit reveal the same meaning to all readers?
A. Evidently not, for there are many contrary interpretations.
37. Q. Are all the Protestants agreed on the question of baptism?¹
A. They are not.
38. Q. Or on the question of Predestination?
A. They are not.
39. Q. Or on eternal punishment?
A. They are not.
40. Q. On the doctrine of Atonement?
A. They are not.
41. Q. On the Divinity of Jesus?
A. They are not; though they claim to have infallible Revelation on all these disputed matters.
42. Q. Had there been no infallible Revelation on these questions, would the Churches have been more at variance concerning them?
A. It is not likely.
43. Q. What would help to reconcile the disagreeing sects?
A. A new Revelation to make plain the meaning of the old.
44. Q. What is the principal objection against an inspired book?
A. It limits the possession of truth to one people or race, and makes it a thing of the long past.
45. Q. What else?
A. It makes all further research and investigation unnecessary; it gives to a sect or a Church power to suppress new truth, and to persecute all who help to broaden the horizon of the mind.
46. Q. What is the testimony of history in this respect?
A. (1) It is said that Omar ordered the Alexandrian Library to be reduced to ashes, because the Koran contained all that was worth knowing. (2) In the same spirit, the Catholic Church, believing the Bible sufficient for all human needs, made war upon Greek and Roman culture until not a trace of it was left in Europe for nearly one thousand years. (3) In modern times all scientists and

¹ "In what way the washing of new-born babies" ensures their salvation is still a subject of discussion in the Churches (see James Martineau's works).

discoverers have been branded as infidels, if not persecuted to death, for announcing conclusions different from those of the "word of God."

- ... Q. What is the inference from these examples?
 A. That an infallible book stands in the way of the progress of mankind.
48. Q. How is the Bible regarded to-day in Europe and America?
 A. Largely as the literature of primitive and uninformed peoples.
49. Q. Is it still worshipped anywhere as an infallible authority?
 A. Only among the least educated people.²
50. Q. What is the right use of the Bible?
 A. To accept whatever is helpful in it, and to reject the rest.³

¹ Martin Luther denounced the astronomers in these words: "People gave ear to an upstart astrologer who strove to show that the earth revolves, not the heavens or the firmament.... The fool wishes to reverse the entire science of astronomy. But sacred history tells us that Joshua commanded the sun to stand still, not the earth." When printing was invented it was hated by the Church as the black art, and a Governor of Virginia said: "I thank God that in those days there was not a printing press nor a school in all Virginia to breed heresy."

² "It may be said in benevolent apology for the teaching of Spurgeon [Moody, Dowie, and Talmage] that it has its taint of vulgarity; but vulgar people exist and must have their religion" (James Martineau). But let it not be forgotten that men and women of culture, science, and refinement exist too, who have an equal right to a religion of their own (see *James Martineau's Speeches*, etc., p. 433).

³ When the Church was all-powerful no one was permitted to reject any portion of the Bible. The eighteenth and nineteenth verses of the last chapter of "Revelation," threatening with awful plagues all who shall add or take away from the written Word, were quoted as sanctioning the persecution against scientists and philosophers. The writer of a heretical book had to sign the following document to escape burning at the stake: "The author has laudably made his submission and reprobated his book" (*Auctor laudabiliter se subiecit et opus reprobavit*).

CHAPTER IV.

GOD

1. Q. Tell me something of the popular ideas about God ?
A. The majority of people think of God as the Person who has created the heavens and the earth and all that they contain.
2. Q. What else ?
A. That he knows everything, sees everything, possesses everything, and is everywhere.
3. Q. What do they believe about his character ?
A. That he is just and holy.
4. Q. What else ?
A. That he is a God of love.
5. Q. Have they always thought of him as a God of love ?
A. No. God grows better as man improves in intelligence and character.
6. Q. Explain your meaning.
A. The god of the savage was a savage and a bandit; the god of Job, the Arab chief, was an Oriental despot; the god of the Jews was a man of war and revenge; and the god of many Christians is a being who punishes the errors of this brief life with unending torments.¹
7. Q. What other ideas are there of God ?
A. That he is deeply interested in what we think, say, and do.
8. Q. And why ?
A. To reward us for the things that give him pleasure, and to punish us for the things which offend him.
9. Q. What name is God known by ?
A. By different names in different countries. The Greeks

¹ Though belief in eternal torments is still professed by church-goers, it is difficult to find any one in our day who acts as if he really believed in so horrible a doctrine. Abraham Lincoln said that, if this doctrine were true, no one should take the time to attend to anything else in life, but remain praying on his knees from the cradle to the tomb.

call him Zeus; the Romans, Jove; the Persians, Ormuzd; the Hindoos, Brahm; the Jews and Christians, Jehovah or Elohim; the Mohammedans, Allah.

10. Q. What other names have men given to God?
A. "The Supreme Being," "The Infinite," "The First Cause," "The Over Soul," "The Eternal Energy," "The Universe," "Nature," "Mind," "Order," etc.
11. Q. But when people say "God" do they not all mean the same thing?
A. Not exactly, for some mean a person; others, an idea, a law; or the unknown or unknowable power which finds expression in the phenomenal world; to others, again, God is "The Whole," or the *Point of Confluence* of the forces of matter and mind.¹
12. Q. Have people always believed in a god?
A. In some form or other the majority of people have always believed in a god or gods.
13. Q. Have there been more than one god?
A. According to popular belief, yes.
14. Q. What are people believing in more than one god called?
A. Polytheists; while those believing in one god are called Monotheists.
15. Q. Name a few of the polytheist people in the world.
A. The Egyptians, Hindoos, Greeks, and Romans.
16. Q. Who were the Monotheists?
A. The Jews, Christians,² and Mohammedans.
17. Q. Have these latter always believed in one god?
A. No. Polytheism was the earliest belief of all nations.³
18. Q. What were the gods of the polytheists?
A. The sun, moon, invisible spirits, shadows, giants, fairy men and women, animals, trees, mountains, rocks, rivers—almost everything.
19. Q. How do you know that these objects were regarded as gods?
A. Because they prayed to them, built churches or temples for them, made images and idols to represent them, and sacrificed to them.

¹ See chapter on Prayer for discussion on the personality of God.

² Would the belief of the Christians in the Trinity exclude them from this list?

³ The claim that to the Jews the Unity of God was divinely revealed is not supported by the facts. It is clearly shown by the Old Testament accounts that the Jews believed in other gods, and that their god was jealous of them.

20. Q. Did they consider all these gods of equal importance?
A. No, the intelligent few looked upon the many gods as the servants or symbols of the one god who was above all.
21. Q. And the ignorant?
A. They believed some to be stronger, more friendly, more beautiful, and wiser than others.
22. Q. How did the belief in gods originate?
A. That question has given rise to many theories.
23. Q. Mention a few of them.
A. There is first the theory that ignorance led the earliest people, who were much like children, to *fear* what they did not understand, and to ascribe what they *feared* to the agency of invisible beings, patterned after themselves only on a very much larger scale. Second: The theory that the feeling of human helplessness or dependence is responsible for the belief in beings more powerful than ourselves. Third: According to another theory, man, who is a sociable being by nature, feels the necessity of entering into fellowship with the invisible forces about him, for which purpose he personifies them. Fourth: The theory that death is the chief cause of the belief in gods.
24. Q. In what way?
A. It is said that, if we could live on this earth for ever, we would get along without imagining the existence of supernatural beings. It is the knowledge that we will die which makes us think of another life, and of beings who control life and death. The animals have no gods, because they have no knowledge of their mortality.
25. Q. Is the number of gods increasing?
A. It is decreasing.
26. Q. Why?
A. As people advance in knowledge and power, they feel more and more able to take care of themselves.
27. Q. Have the educated people fewer gods than the ignorant?
A. Yes. The belief in many gods prevails only in the least civilised countries.
28. Q. How about the belief in one god?
A. It is still very largely held.
29. Q. Are there any people who do not believe in a god?
A. There are.

30. Q. Why do they not ?
 A. Because they say a being such as he is conceived to be by the popular mind is beyond the sphere of our knowledge.
31. Q. Cannot the existence of a god be demonstrated ?
 A. Some think it can, and others, again, that it cannot.¹
32. Q. State a few of the principal arguments for the existence of a god.
 A. The first is the argument based on the law of causality.
33. Q. What is that ?
 A. Every effect or existence must have a cause. The universe is an existence, therefore the universe has a cause, which is—God.
34. Q. Is not that a strong argument ?
 A. It is very strong, but not conclusive.
35. Q. Why not ?
 A. If every existence must have a cause, God, who is an existence, must have a cause too.
36. Q. But could not God have his existence from all eternity ?
 A. If he could exist at all without a cause, then the argument that there is no existence without a cause falls to the ground.
37. Q. What else ?
 A. If God could exist from the beginning without a cause, so could the universe.
38. Q. What would follow if we admitted that God, too, had a cause ?
 A. Then we would wish to know what was the cause of that cause, and so on, building an eternal chain without beginning or end.²
39. Q. What is the next argument ?
 A. The argument from perfection.
40. Q. Explain that.
 A. It is said that, though we ourselves are imperfect beings, we still carry in our minds, as in a mirror, the idea or reflection of a perfect being.
41. Q. What is the inference ?
 A. That this reflection in the mirror of the mind of a perfect

¹ Consult Kant's *Critique*, Caro's *L'Idee de Dieu dans la Critique Contemporaine*, Guyau's *L'Irreligion de L'Avenir* (translated).

² Read chapter on Kant in *History of Philosophy*, by George Henry Lewes.

being proves the existence of such a being, which is—God.¹

42. Q. Explain further.
A. If we have in our minds the image of a perfect being, this being must also possess existence, for if he lacked that he would not be perfect.
43. Q. What would follow?
A. It would follow that our idea of God proves that God exists, for, if such a being did not exist, we could not have thought of him as existing.
44. Q. What is the value of this argument?
A. It is not considered so strong as the first.
45. Q. Why?
A. Perfection is a *quality*, existence is a *condition*, and the argument confounds the one with the other. We may have in our minds, for instance, the image or dream of a perfect city hidden away in the bosom of the ocean or floating on the clouds, without there being any such city in existence to correspond to the picture in our mind.
46. Q. Give me another illustration.
A. For many centuries people entertained the idea that the world was flat, yet that idea in their mind could not have been the reflection of the earth, for such an earth never existed.
47. Q. Do these perfectly good or perfectly bad beings exist only in our minds?
A. Yes.
48. Q. What is the next argument?
A. It is called the argument from design.²
49. Q. What is that?
A. Just as a watch, the works of which are so constructed as to strike the hour, proves beyond a doubt a watch-maker, the world, by its more wonderful mechanism, proves a world-maker.
50. Q. What is the value of this argument?
A. There is no similarity between a watch and a world. It is not so easy to agree on what the world was made for as it is to tell what a watch was made for.

¹ This was Descartes's celebrated argument, which, with slight modification, was presented also by Malebranche, Leibnitz, Reid, and many others.

² Paley and Bishop Butler were the great advocates of this argument.

51. Q. Are not the marks of design in nature as unmistakable as those in the watch ?
 A. If they were, there would be no mysteries. We would then know everything.
52. Q. Do you mean to say we do not understand the world as fully as we do a watch ?
 A. Yes, and that we cannot, therefore, explain it as satisfactorily as we can a watch.
53. Q. What else may be said against this argument ?
 A. A watch could prove only a watch-maker, not also one who created the materials out of which the watch was made.
54. Q. What then ?
 A. Even admitting a world-maker, we would still have to prove a world-creator.
55. Q. In view of these difficulties, what is the right attitude of mind towards this question ?
 A. One of earnest investigation. We should neither be dogmatic nor flippant, but continue to seek for light.
56. Q. In what sense may the word "god" be properly used ?
 A. As representing the highest ideals of the race. Whatever we believe in with all our heart, and seek to possess with all our might, is our God.
57. Q. Would it not follow from that that some people's gods are better and nobler than others ?
 A. Undoubtedly ; each man is the measure of his own Ideal or God.
58. Q. Explain further. 3429.
 A. As we see only as much and as far as the structure of our eyes will permit, so we can only think and desire according to the compass of our mind.
59. Q. Who, then, made God ?
 A. Each man makes his own God.¹

¹ It is proper also to speak of God as representing the constitution of the universe ; yet even then he, or she, or it, would be to us no more, and no less, than a picture in our mind. A subjective God is all we can have any relations with.

CHAPTER V.

THE EARTH

1. Q. How old is the earth ?
A. The years of the earth run into the millions.
2. Q. Has it always been inhabited ?
A. For a long time the earth was too hot to permit of life.¹
3. Q. What is the origin of the world ?
A. Scientists tell us the world was once a sailing cloud of fire, the molecules or particles of which were prevented from coming together by the excessive heat.
4. Q. What happened then ?
A. In the course of long ages the heat declined, giving the atoms a chance to come together.
5. Q. What was the result of this concentration of atoms ?
A. The sun was formed—a vast ball of fire, which, as it rotated and revolved, cast off pieces which became worlds. The earth is one of them.
6. Q. How did life begin on the earth ?²
A. As the earth, which is like a bubble in a Niagara of worlds, became cooler, it shrank and contracted and divided into land and water.
7. Q. And then ?
A. With this process of cooling, the thick, smoky atmosphere which had enveloped it before disappeared, letting the sun's rays penetrate to the earth.
8. Q. What happened then ?
A. "The earth became with young."³
9. Q. In what form did life first appear ?
A. In the form of *specks*, which floated on the surface of waters and repeated themselves.

¹ *Virchow on the Teachings of Science* (Clifford); *Martyrdom of Man* (Winwood Reade).

² Tyndall's *Belfast Lectures*, 1874; *Revue d'Anthropologie: Philosophie Zoologique* (I amarcq); *The Origin of Species* (Charles Darwin, 1859); *The Physical Basis of Life* (Huxley).

³ Winwood Reade.

10. Q. What are these specks called ?
A. In scientific language they are called embryonic plants.
11. Q. What was the next form of life ?
A. Then appeared other specks which lived on the first. These were more complex in organism, and are called embryonic animals.
12. Q. Were these animated specks the ancestors of man ?
A. The history of our race begins with them.
13. Q. Are you sure you have given me the true story of the earth ?
A. No. This is only an hypothesis or a guess.
14. Q. Has it any value whatever ?
A. It has great value, because it is not a random guess, but the result of the patient labours of the greatest scientists of the world.
15. Q. What is this hypothesis called ?
A. The theory of evolution.
16. Q. Are there any other theories on the subject ?
A. There is also the theory of creation.
17. Q. Which is the oldest ?
A. The creation story.
18. Q. What is that ?
A. According to this theory, the heavens and the earth and all that they contain were created in the space of six days by the "word of God."
19. Q. Was anybody present when God created the heavens and the earth ?
A. There could not have been.
20. Q. On whose authority, then, is the statement based ?
A. On the authority of men who were not eye-witnesses.
21. Q. Why is their word accepted ?
A. It is claimed that God told them how he made the world.
22. Q. How do we know that ?
A. The men themselves say so.
23. Q. Are we expected to accept their word upon their own authority ?
A. It is the only proof they offer.
24. Q. The theory of creation, then, is a guess too ?
A. It is.

25. Q. Of the two which should we prefer?
A. The one which commends itself to the most enlightened minds and best explains the known facts.
26. Q. In accepting either theory do we thereby bind ourselves to it for ever?
A. No! We reserve to ourselves the liberty of exchanging it for a better one whenever we can do so.
27. Q. Who is the author of the theory of Evolution?
A. Charles Darwin is the man with whose name, more than with that of any other, the doctrine of Evolution is associated.
28. Q. Who is the author of the story of creation?
A. Moses is perhaps the most frequently quoted authority on the subject.
29. Q. Compare the two men.
A. Darwin was a student and a scientist who spent all his life interrogating nature; Moses was not a scientist, he made no independent investigations, but accepted the views about the origin of the earth which were current in that remote age.
30. Q. How do people distinguish between the ideas of Darwin and those of Moses?
A. The ideas of Darwin are called Science; those of Moses Theology.¹
31. Q. What is the standing of Moses with modern scientists?
A. As a scientist he has no standing at all.
32. Q. Is it proper to point out the mistakes of a man considered infallible?
A. If he makes mistakes, yes.
33. Q. Has any violence ever been used to advance Darwin's views?
A. No.
34. Q. To advance those of Moses?
A. Yes—men have been put to death by fire and the sword.
35. Q. Whose views prevail to-day?
A. Darwin's.

¹ Even Moses, in trying to explain the world, was obeying a scientific impulse—the story of the creation was the best solution he could invent. But the science of Moses has become the theology of the Churches.

36. Q. What does that signify ?

A. That error cannot be maintained by force, and that no miracle in the calendars or bibles of the world can compare with the triumph of truth.¹

¹ Mohammedanism is to-day the religion of nearly two hundred millions of people ; but let us think of the bloodshed and of the long ages of persecution and the large sums of money which were required to perpetuate Islam. The same may be said of Christianity ; it has cost two thousand years of war, persecution, inquisition, and oceans of human lives and of money. But let us turn our eyes upon this other picture : A short time ago some scientists, foremost among whom was Charles Darwin, announced a new doctrine—the doctrine of Evolution, which was as new, as radical, as revolutionary, as either Mohammedanism or Christianity, and yet it has overcome the most determined and fanatical opposition, and is, at the present day, accepted and taught in all the world. Yet to achieve this stupendous triumph it has required only about a half-century of time, and absolutely without the remotest suggestion of persecution—without so much as singeing the hair of a single human being. Could anything be a greater compliment to the puissance of truth ? In the course of a few years science has established a grander empire than the Bibles of the world, in spite of the bloody seas they have sailed through for the past thousands of years.

CHAPTER VI.

MAN

1. Q. What is man?¹
A. A rational animal.
2. Q. How old is man?
A. Hundreds of thousands of years old.
3. Q. Who are his ancestors?
A. The mammalia.²
4. Q. How do you know?
A. In the composition, structure, and function of his organs man is exactly like an animal.
5. Q. Specify a few of the points of resemblance between man and the animals.
A. Man has not a muscle or a bone or an organ which is not paralleled in the animals.
6. Q. What else?
A. They are both composed of the same materials, possess the same physical parts, and are subject to the same laws of life and death.
7. Q. Does man differ at all from the animals?
A. Intellectually and morally, man is superior to all the animals.
8. Q. In what other way do they differ?
A. The animal seeks only the gratification of his appetites; man, the realisation of his ideals.
9. Q. What else?
A. Man lives and labours for the future, for posterity—for his fellows not yet born; the animals exhibit no sense of the beyond.

¹ Consult *Natural History of Man* (Pichard), *Man's Place in Nature* (Professor Huxley), *Descent of Man* (Charles Darwin), *Unité de l'Espèce Humaine* (de Quatrefages, Paris, 1861), *Early History of Man* (Tylor), *Antiquity of Man* (Lubbock).

² The highest class of vertebrata—all the animals which nurse their own young only.

10. Q. In what relation does man stand to the animal?
A. He is descended or ascended from the animal.¹
11. Q. What is the strongest proof that man has ascended from the animal?
A. The fact that the human embryo before birth passes through stages of development, when he has gills like a fish, a tail, great toes, a body covered with hair, and a brain like that of a monkey.
12. Q. What is the meaning of this?
A. That man in his long existence has climbed through all these forms of life to his present state.
13. Q. Do you mean to say that there was a time when man was an animal like some of those known to us to-day?
A. For many, many years he was like the monkey, the gorilla, the chimpanzee, or the orang-outang.
14. Q. How long ago was that?
A. It is difficult to say, but probably hundreds of thousands of years ago.
15. Q. Man was not specially created, then?
A. No. He grew slowly upwards—from lower forms of life.
16. Q. Have there ever been any eye-witnesses of an animal evolving into a man?
A. No. Nature works in secret. The lower animals have passed into man by soft, slow, imperceptible gradations—as one view dissolves into another.
17. Q. Is this growth or development confined to his body?
A. His mind or reason is just as much an evolution as his body.
18. Q. Why do not all animals develop into men?
A. For the same reason that all savages have not developed into civilised peoples.
19. Q. What is that?
Unfavourable conditions.
20. Q. Explain this.
A. Progress results from necessity. Both animals and savages remain stationary as long as they can preserve themselves in comfort. They invent and develop new resources only when compelled or threatened by danger and death.

¹ "The abyss which, through the ignorance of man, was placed between him and the brute world does not exist" (Dr. G. L. Duprat, Professor in University, Lyons, France).

21. Q. Explain further.
 - A. Men and animals are the expression of the conditions under which they live. When these change, men and animals change with them.
22. Q. What one thing has contributed to the development of man more than anything else ?
 - A. The struggle for existence.
23. Q. Are there any other opinions on the genesis of man ?
 - A. Yes. A great many people still believe that he was created by God, all at once and perfect, some six thousand years ago.¹
24. Q. What is meant by "created perfect" ?
 - A. Made in the likeness of God.
25. Q. Is it claimed that man was once as perfect as God ?
 - A. I do not think so.
26. Q. Then he was imperfect, compared with God ?
 - A. Yes.
27. Q. Why do they say, then, that man was created perfect ?
 - A. I believe they mean he was as perfect as a man could ever hope to be.
28. Q. Why is he not perfect now ?
 - A. It is said that he fell from perfection by an act of disobedience against his creator.
29. Q. How could a perfect man commit a crime ?
 - A. It is said that the creator for his own glory permitted the crime.
30. Q. Then he obeyed God instead of disobeying him ?
 - A. Yes, if he was helping to carry out the eternal purpose of God.
31. Q. What were the consequences of man's fall ?
 - A. Sin, suffering, and death, for all mankind.
32. Q. Was there no evil in the world before the fall of man ?
 - A. There was, according to science ; and also according to the Bible, for it says Satan tempted Adam.²

¹ The American Association for the Advancement of Science, by almost unanimous vote, "declared Adam and Eve to be myths" (comp. Report of Asso., 1901, Aug. 29th). Notwithstanding the unanimity of men of science on this point, the world over, the clergy still continue the tra-la-la of empty phrases about the first man, etc. But can the clergy afford to ignore the doings and sayings of the men of science ?

² As both Satan and hell existed before Adam, man cannot be held responsible for the introduction of evil into the universe.

33. Q. What is the popular belief about Satan ?
A. That he is the great enemy of God and man.
34. Q. What else ?
A. That he is as powerful for evil as God is for good.
35. Q. How old is the devil ?
A. Almost as old as God—in the popular mind.
36. Q. How may the belief in a devil be explained ?
A. Mankind, in its childhood, in attempting to account for the existence of light and darkness, life and death, love and hate, accepted the simplest solution—that of supposing two different beings, the one good and the other bad—ruling the world.
37. Q. Is he also as wise as God ?
A. No, but he is believed to be very cunning.
38. Q. What is said to be the object of his existence ?
A. To tempt and ruin men, and to spoil the work of God.
39. Q. Who is responsible for his existence ?
A. The common belief is that he was, like the first man, a perfect being—an archangel, who, desiring to be a god himself, was put out of heaven.
40. Q. Why does not god destroy the devil ?
A. For the same reason that is said to have influenced him in permitting the fall of man.
41. Q. What is that ?
A. His own glory.
42. Q. Will there always be a devil and a hell ?
A. According to many people, yes.
43. Q. Why do people believe in such stories about the devil, etc. ?
A. Because their fathers and mothers believed in them.
44. Q. What do you think of such beliefs ?
A. The opinions and beliefs of people concerning subjects they have not diligently studied are of little value.
45. Q. What are the effects of a belief in the devil ?
A. It makes men superstitious, melancholy, cowardly, and cruel.
46. Q. How may the belief in a devil be outgrown ?
A. Through enlightenment.
47. Q. What is the most fearful thing in the world ?
A. Fear.

48. Q. Why?

A. Because, by paralysing both mind and body, fear deprives us of the ability to defend ourselves; and when we cannot defend ourselves we become the sport of political and religious scarecrows.

CHAPTER VII.

JESUS

1. Q. What is the prevailing belief about Jesus?
A. That he was a god and the son of a god.
2. Q. What else?
A. That he was also a man like ourselves.
3. Q. Was he both god and man?
A. That is the popular belief.
4. Q. What are the evidences of his divinity?
A. It is said that he was conceived of the Holy Ghost; that he was without sin; that he worked miracles, and that he proclaimed himself the equal of God.
5. Q. What is the value of these claims?
A. They cannot be accepted as evidence.
6. Q. Why not?
A. In regard to the Immaculate Conception we may say that of Jesus, as a "*miracle*," we can have no opinion whatever.
7. Q. But could people be prevented from believing in his miraculous birth?
A. No; because people generally believe without any regard to the evidence.
8. Q. What is such belief called?
A. Credulity.
9. Q. How do the educated people differ from the vulgar in this respect?
A. The educated proportion their beliefs to the evidence.
10. Q. What about the miracles of Jesus?
A. As we have not ourselves seen any of his miracles, they cannot have the same weight with us as with those who were supposedly eye-witnesses.
11. Q. Continue the argument.
A. And as but few of those who saw the miracles considered them conclusive—for many hesitated and asked for more

signs—we, who have not seen them at all, would be justified in treating the miraculous element in the life of Jesus as we treat the same in those of Buddha, Moses, and Mohammed.

12. Q. Explain further.

A. Without entering into the discussion of miracles in general, it could be said that, inasmuch as they are an appeal to the senses of those who may have been present, it has to be shown, in the first place, that their senses did not deceive them, and, in the second place, that their testimony is infallible, before we can accept them as evidence.

13. Q. We have, then, only the word of man that Jesus worked miracles?

A. That is all.

14. Q. If a man, claiming to be a god, should raise the dead in *our* presence, would not that prove his claim?

A. It certainly would not.

15. Q. Why?

A. Because, even if he should create also a new world in our presence, he would only be doing a few things which we could not do ourselves. Because a man can raise the dead, etc., it does not follow that he can do everything.¹

16. Q. What would he have to do to prove he was a god?

A. *Everything!* But in the nature of things no man can give proof that he can do everything.

17. Q. And therefore?

A. No man can prove himself a god.

18. Q. What is the strongest argument against miracles as an evidence of divinity?

A. The fact that miracles were also performed by the devil and his agents.²

19. Q. Did Jesus admit the power of others besides himself to work miracles?

A. Yes, when he said: "If I cast out devils by Beelzebub, by whom *do your sons cast them out?*"

¹ See Chap. I., "Reason and Revelation." A safe rule in these matters is always to prefer the least wonderful to the most wonderful: it is more probable that the men who reported the miracles of Jesus were mistaken, as those who reported the miracles of Mohammed are supposed to be, than that the dead, for instance, rose from the grave.

² Supernatural powers are attributed to the devil and his angels in all the religious scriptures of the world; the magicians of Egypt competed with Moses, and Simon Magus with the Apostles in performing miracles.

20. Q. Has there ever been a religion that has not claimed power to work miracles?
A. We do not know of any.
21. Q. What about the claim that Jesus was without sin?
A. "And the child grew and waxed strong in spirit," says the evangelist. If Jesus grew better as he grew older, he could not have been perfect from his birth.¹
22. Q. Tell me now about the man Jesus—when was he born, and where?
A. He was born in Palestine about two thousand years ago.
23. Q. Do the writers of the time speak about Jesus and his works?
A. There is positively no important mention of Jesus in any writing outside of the New Testament.²
24. Q. What is the meaning of that?
A. That either he was not considered a sufficiently important personage to write about, or that he was not known to these writers at all.
25. Q. What is the story about him in the New Testament?
A. That he did many good and wonderful deeds; that he was arrested and tried for calling himself "King of the Jews" and "Son of God"; that he was condemned and crucified, and that he rose again from the dead.
26. Q. What else?
A. That he showed himself after his Resurrection to his disciples, and ascended on the clouds to heaven.
27. Q. How long did Jesus live on earth?
A. From thirty-three to fifty years, according to tradition and the gospels.³
28. Q. Was his public career long?
A. No. His public life covered probably a little over a year, though the Apostle John seems to make it three and a half.
29. Q. Did Jesus have a family?
A. He was not married.
30. Q. Did he have brothers and sisters?
A. Yes, he was one of a large family of children.

¹ See Chap. VIII., "Teachings of Jesus."

² Seneca, Ovid, Epictetus, Josephus, Philo, Pliny, Tacitus, Juvenal, and Quintilian lived about the time of Jesus and his Apostles.

³ There was a tradition in the early Church that Jesus lived to be nearly fifty years old.

31. Q. Did all the members of his family believe in him ?
A. Not all of them.
32. Q. Have there been others before or since Jesus who claimed to be divine, and to have worked miracles ?
A. There have been many.¹
33. Q. Have these, too, their followers ?
A. Yes, and their temples and altars, to this day.
34. Q. Were they all impostors ?
A. Not at all. Most of them believed they were divinely chosen to teach or to rule the people.
35. Q. Does their sincerity make true all they taught ?
A. No. Sincerity cannot change the chaff into wheat.
36. Q. What is the proper attitude towards these ancient teachers ?
A. One of gratitude for their services, and of honest criticism of their errors.

¹ Hundreds of years before Jesus was born, Gautama, the Buddha, was worshipped as the Sinless One. He was supposed to be born without a father, and to have worked miracles. The same was said of Serapis, Appollonius, and many others. The Chinese believe that Laotze, the founder of one of the religions of that empire, was born at the age of eighty-four, with grey hair; his gestation was prolonged that he might have wisdom from his birth.

CHAPTER VIII.

THE TEACHINGS OF JESUS

1. Q. What were the ideas of Jesus ?
A. Mostly those of the people of his time and country.
2. Q. Of what nationality was Jesus ?
A. He was a Jew.
3. Q. What was the political condition of the Jews at that time ?
A. They were a subject race, having been conquered by the Romans.
4. Q. Was that the first time the Jews had lost their freedom ?
A. No. It may be said that they had spent the greater part of their existence in slavery and oppression, first in Egypt, then in Assyria, and finally under the Persians and Romans.
5. Q. What was their intellectual standing ?
A. Owing to the long period of political oppression under which the Jews lived, the arts, industries, sciences, literature, and philosophy were necessarily neglected.
6. Q. What were the Jews distinguished for ?
A. For their religion.
7. Q. What was the great hope held out by this religion ?
A. The hope of a Messiah—a Christ¹ who would deliver the Jews from foreign bondage.
8. Q. What did Jesus teach in regard to this national hope ?
A. He offered himself as the Messiah of the Jews.
9. Q. Did he deliver the Jews from their foreign yoke ?
A. No. The Jews are still without a state or kingdom of their own, and continue to be oppressed in many lands.
10. Q. Do they still look forward to "a Christ" ?
A. Most of them do, but the educated among them have abandoned the hope of a Messiah, and have wisely adopted the countries in which they live as their own.

¹ The word Christ is derived from "Kristus," a Greek word, meaning anointed.

11. Q. What other political ideas did Jesus have ?
A. He believed that all the kingdoms of the earth belonged to the devil, but that some day he would himself be recognised as the king of kings.¹
12. Q. What was his attitude towards Cæsar ?
A. He recognised his authority, and commanded others to do the same.
13. Q. Did Jesus denounce war ?
A. No ; at least not directly.
14. Q. Or slavery ?
A. He kept silent on that question.
15. Q. Did slavery exist in his day ?
A. Slavery of the worst kind existed almost everywhere at the time.
16. Q. What did he say in regard to peace and goodwill ?
A. That he did not come " to bring peace, but a sword."
17. Q. What else ?
A. To his disciples he said : " My peace I give unto you."
18. Q. Have all who called themselves Christians lived in peace with one another ?
A. No. They have repeatedly waged war against one another, and have persecuted one another.
19. Q. Which have been the worst persecutors in the world ?
A. Without doubt, those who have called themselves Christians.
20. Q. Could the teachings of Jesus be held responsible for it ?
A. Only a part of it.
21. Q. For example ?
A. When he said that they who did not believe on him were the children of the devil and would be damned.²
22. Q. Did Jesus wish to compel people to believe on him ?
A. No ; but if they did not, they would be punished severely.

¹ See Temptation of Jesus in the Wilderness.

² The following are a few of the sayings of Jesus on this subject :—" But those, mine enemies which would not that I should reign over them, bring hither, and slay them before me " (Luke xix. 27). " And whosoever shall not receive you, nor hear your words . . . it shall be more tolerable for the land of Sodom and Gomorrah in the day of judgment than for them " (Matt. x. 14). " And he that believeth not shall be damned " (Mark xvi. 10). " Depart from me, ye cursed, into everlasting fire " (Matt. xxv. 41). " He that will not hear the church, let him be to thee as a heathen " (Matt. xviii. 17). Read also what Jesus is reported to have said about throwing into the fire the " branch " that abideth not in him ; about those who refuse to confess him before men ; also, his words, " Many are called, but few are chosen," etc.

23. Q. What did his followers do ?
A. To save people from this awful punishment, they persecuted or compelled them to become Christians.
24. Q. Define persecution.
A. It is an attempt to maintain an opinion by violence.
25. Q. Explain further.
A. It is a conspiracy to conquer the reason without enlightening it.¹
26. Q. Has persecution ever helped the truth ?
A. Never. It has only caused much suffering, and tempted people to commit perjury from fear.
27. Q. What is the lesson we should learn of this ?
A. That freedom and fraternity are better than hate and persecution.²
28. Q. Did Jesus believe in liberty of conscience ?
A. No religious teacher claiming divine authority ever has.
29. Q. What other subjects did Jesus talk about ?
A. About love, faith, charity, brotherhood, goodness, justice, and forgiveness.
30. Q. How are his teachings on these subjects regarded ?
A. Very highly.
31. Q. What were some of the most beautiful sayings of Jesus ?
A. His parable of the Good Samaritan ; the Prodigal Child ; the shepherd's care for the lost sheep ; the wise and foolish virgins ; the sower who went out to sow his seed ; the widow and her mite ; and his gracious invitation to the weary and heavy laden to come unto him for rest.
32. Q. What is the value of these sayings of Jesus ?
A. They are as sweet as any human words can be.
33. Q. Did Jesus ever say or do anything which it would be wrong for us to imitate ?
A. Yes. In moments of anger and impatience he " cursed " and called his enemies evil names.³ He used physical force⁴ against the money changers ; disregarded the

¹ "The mouth from which such heresies proceed should be stopped with blows from a cudgel, and not with arguments."—From a letter to Pope Innocent II. by St. Bernard (comp. *Abelard*, by de Reimusat and Jules Simon). See also chapter on "Creeds."

² See conclusion of chapter on "The Earth."

³ Luther defended his vehemence often by quoting the example of Jesus : "What think ye of Christ . . . when he calls the Jews an adulterous and perverse generation, a progeny of vipers, hypocrites, and the children of the devil ? What think ye of Paul, who calls his enemies of the gospel dogs and seducers ?" (*Luther's Table Talk*).

⁴ See the story of his using a whip against the money changers.

laws of health and cleanliness; destroyed the property of his neighbours—

34. Q. Give me particulars.

A. In those days, in the Orient, people ate with their hands, as no knives or forks were used, and when Jesus was asked why his disciples did not wash their hands before eating he defended the unclean habit by saying that nothing which went in from the outside could hurt anybody.¹ This is also the doctrine of the Dervishes, who never wash.

35. Q. Is it true that nothing going in from the outside can hurt us?

A. No. Disease germs, foul gases, poisonous foods or drugs, intoxicating liquors, etc., frequently hurt both mind and body.

36. Q. When did Jesus destroy property belonging to his neighbours?

A. When he caused to be drowned a herd of two thousand swine, without first securing from their owner the right to do so.²

37. Q. Would anyone be permitted to do to-day what Jesus did on that occasion?

A. Our laws punish such acts.

38. Q. But if Jesus was God, could he not do as he pleased?

A. If that be the defence, then it were foolish for us to have any opinion whatever of him. If Jesus could do as he pleased without regard to right or wrong, as we understand them, then we would have no standard by which to judge, even that he was good. We cannot respect or love anybody who is merely an enigma.

39. Q. Would it be fair to infer from the above instances that Jesus was severe and unjust?

A. No. There are many passages which describe him as the gentlest, kindest, and friendliest of men—one who "went about doing good."

40. Q. Is not that a contradiction?

A. Not unless we regard him as a God, for there is in all men a better and a lower nature. The best of men are not always at their best; neither was Jesus.

¹ No doubt the monks and anchorites of the Middle Ages who cultivated "dirt" as a virtue remembered this reputed saying of Jesus.

² Matt. viii. 28-34.

41. Q. Is it well to disclose both sides of a man's character ?
 A. It is necessary to do so. We cannot understand human nature unless we understand also the contradictions of human nature.
42. Q. What did Jesus teach about marriage ?
 A. He preferred celibacy,¹ and commended the example of those who became eunuchs² for the kingdom of heaven's sake.³
43. Q. What did Jesus teach about the future, or the "kingdom of heaven" ?
 A. He taught that the other world was more important than this, and, instead of endeavouring to right wrong conditions here and now, he counselled non-resistance to evil.⁴
44. Q. What did he say to those who wept and suffered, and were persecuted and robbed of their liberties and rights ?
 A. To rejoice and be exceeding glad, for they would have their reward in the other world.⁵
45. Q. What effect would such teaching have ?
 A. While it might help some people to bear the ills of life, it would unnerve the many for all efforts to right their present wrongs.
46. Q. What other effect would it have ?
 A. It would encourage the rich and the powerful to answer the cry for justice of the oppressed by suggesting to them that they ought to be satisfied with the reward promised them in the next world.

¹ How the Church has interpreted Jesus's teaching on this subject may be seen from the following: "If any one shall say that the married state is to be preferred to the state of virginity or celibacy, let him be accursed....." (Canon of the Council of Trent).

² In one of the Apocryphal Gospels a woman asks Jesus how long this sinful world will last. To which Jesus answers: as long as you women marry and bear children.

³ It is curious how the Catholics, who believe in celibacy of the priesthood, make St. Peter—a married man—their favourite Apostle, while the Protestants, who believe in marriage, show a decided preference for St. Paul, the celibate.

⁴ "Him that taketh away thy cloak, forbid not to take thy coat also. Give to every man that asketh of thee, and from him that taketh away thy goods, ask them not again" (Luke vi. 29, 30). "Resist not evil; unto him that smiteth thee on the one cheek offer also the other" (Luke vi. 29).

⁵ Matt. v. 12; also: "Blessed be ye poor, and ye that weep now, and mourn, for great is your reward in heaven" (Matt. v. 3, 4, and Luke vi. 20-23). "But woe unto you that are rich, for ye have received your reward" (Luke vi. 24, 25).

47. Q. Would the poor have any right to complain of their condition now if they are to be rewarded for it in the future ?
- A. No ; for they could be assured that justice would be done to them in the next world, and that, since their oppressors would be punished *there*, they should be left unmolested here.¹
48. Q. Is it right to be contented with poverty and oppression ?
- A. It would be treason against our fellows to encourage these evils by submitting to them.
49. Q. Is it blessed to be poor, weak, and wretched ?
- A. It is miserable.
50. Q. What should we do, then ?
- A. Do everything to better our condition, now and here.
51. Q. Sum up the views of Jesus on the question of justice.
- A. Those who have their reward now, like Dives, for instance, will open their eyes in hell ; while those who, like Lazarus, suffer here, will go to Abraham's bosom.²
52. Q. Did not Jesus denounce the evil doers ?
- A. Yes, he spoke in tones of righteous indignation against all who, knowing the good, preferred the evil.
53. Q. On the whole, then, has the influence of Jesus been good or bad ?
- A. His words of love and goodness have made the centuries fragrant, but his theological doctrines have caused much hatred and bloodshed.

¹ Comp. parable of the wheat and the tares growing together until the day of the harvest.

² Luke xvi. 19.

CHAPTER IX.

THE CHURCH

1. Q. Define the word "Church."
A. It is derived from the Greek "kuriakon," which means [the house] of the Lord.
2. Q. Define the idea.
A. At first the Church was a republic of fellow-believers—an organisation in the Spirit; then arose gradually a distinction between clergymen and laymen. Teaching in the Church was monopolised by the priest and the bishop, who also claimed the power to save and to damn the soul for ever. From a republic the Church became a corporation.
3. Q. Which are the oldest Churches?
A. The Catholic, Greek, Armenian, and Nestorian; and the modern Churches are the Lutheran, Episcopalian, Presbyterian, Baptist, Methodist, etc.
4. Q. What other Churches are there?
A. The Liberal—namely, Unitarian, Universalist, and Unsectarian.
5. Q. Do they fellowship with one another?
A. More now than formerly. The progress of the sciences has stopped all sectarian persecutions which once dishonoured humanity.
6. Q. Do they ever co-operate in the field of charity and reform?
A. More in this country than in any other, which is a very hopeful sign, for it shows that the spirit of toleration is spreading.
7. Q. What has contributed to this broadening process?
A. Education and commerce; also the labours and examples of brave men and women.
8. Q. Which is the most formidable Christian Church to-day?
A. The Catholic.

9. Q. How did the Catholic Church arise ?
A. It was organised about the time the Roman Empire became converted to Christianity. The Emperor Constantine¹ was the first imperial head and protector of the Catholic Church.
10. Q. What kind of a man was he ?
A. He was both cruel and weak. Among many other crimes he murdered his wife and son ; notwithstanding, he presided in his imperial robes at the important councils of the Church.²
11. Q. What effect did his imperial patronage have upon the early Church ?
A. It made the Church covetous of wealth and influence, and the clergy ambitious, intriguing, partisan, and intolerant.
12. Q. What else ?
A. It makes the prelates, pontiffs, and popes claim authority over all things, both temporal and spiritual.
13. Q. Did the Catholic Church prosper ?
A. It became in time more powerful than the Roman Empire.
14. Q. What use did the Church make of this vast power ?
A. It added to its pecuniary and political resources, dominated the consciences of people, put to death all the heretics, and announced that no one could have God for a father unless he accepted also the Church for a mother.³
15. Q. What is the verdict of history on the persecutions of the Catholic Church ?
A. That it has caused more unnecessary suffering in the world than any other institution.⁴
16. Q. Is the Catholic Church sorry to-day for her past ?
A. The Catholic Church believes it can never do wrong, therefore it has no regrets.⁵

¹ Comp. Jules Simon's *La Liberté de Conscience*, pp. 32-35.

² Constantine, in his silken robe embroidered with threads of gold, presided at the Council of Nice, called to take action against the Aryan heresy. At the Council of Chalcedon the priests presented the following address to the emperor : " You have established the Faith, exterminated the heretics. That the king of heaven may preserve the king of the earth is the prayer of the Church and the clergy," etc.

³ Consult Winwood Reade's *Martyrdom of Man*.

⁴ See Lecky's *History of European Morals*.

⁵ Consult Jules Simon on the Massacre of St. Bartholomew, *Liberté de Conscience*, pp. 43-84. In his *Histoire de France* Henry Martin quotes those terrible words of the Catholic priest in reply to the complaint of the soldiers that they could not tell the Catholics from the heretics : " Kill, kill all," answered the priest, " God will know his own " (*Tuez, tuez, Dieu reconnaîtra les siens*). The joy of Catholic

17. Q. Why does she not persecute to-day?
A. The State will not permit it.
18. Q. Has the influence of the Catholic Church been only bad?
A. No, she has also served humanity in many ways—by protecting the poor, by encouraging art, and by bringing about a European coalition against Asiatic invaders.
19. Q. How did the Catholic Church lose its prestige?
A. In the sixteenth century a German monk rebelled and succeeded in splitting up the Church. This was Martin Luther,¹ the author of the religious movement known as the Reformation.
20. Q. Do all the Protestant Churches date from the Reformation?
A. Except the Church of England.
21. Q. Who was the founder of that?
A. Henry VIII., of England, who quarrelled with the Pope.
22. Q. What was the occasion of the quarrel?
A. The king wished to put away his wife for another woman, but the Pope would not give his consent.²
23. Q. What did the king do then?
A. He founded a new Church, of which he became the absolute master, and which let him do as he pleased.³

Europe over the massacre of St. Bartholomew was so great that the French Parliament ordered an annual procession in Paris to commemorate the event. Fortunately, the decree was never carried out. In Rome, however, Gregory XIII. organised a procession which went about the streets chanting and praising God for the massacre of the heretics. This same Pope also ordered a fresco representing the scenes of murder on the night of St. Bartholomew, which may be seen to this day in the Sistine Chapel. In a sermon preached before this Pope only a few days after the massacre, Muret, the priest, said: "O memorable night! Most glorious of all the festivals of the Church. In that night even the stars shone more brilliantly," etc. The address concludes by calling Charles IX., Catherine his queen, and the Pope the most blessed in all the world, for being instrumental in bringing about the massacre of the Huguenots (*Les Predicateurs de la Ligue Labitte*!).

¹ On his death-bed Martin Luther was able to say that he had conquered three Popes, one king, and one emperor.

² There were other points of dispute, but the desire of the king to put away Queen Katherine for a younger woman precipitated the breach between England and Rome. For a long time after, the Church of England remained, except in name, Roman Catholic in belief and practice. Consult Mosheim's *Ecclesiastical History*. It is said that Charles V., being related to the English Queen, used his influence to prevent the Pope from granting a divorce. Henry married six times, sent three of his wives to the block, and also beheaded Sir Thomas Moore for refusing to acknowledge him as the supreme head of the Church. Leo X. had called Henry VIII. "The Defender of the Faith," for having written against Luther.

³ Henry VIII. altered the coronation oath to read: "The King shall then swear that he shall maintain and keep the lawful rights and liberties of old time granted by the righteous Christian Kings of England to the Holy Church of England, *not*

24. Q. What is the name of the Church of America?
A. America has no State or National Church.
25. Q. Are all Churches tolerated here?
A. Yes, and all religions; but while the State in America makes no appropriation for the Church, in exempting Church property from taxation it indirectly compels the people to support the Churches.
26. Q. Is the Church to-day on an equal footing with the State in any country?
A. No. The Church, which once ruled both kings and peoples, is now the servant of the State everywhere.
27. Q. What does that imply?
A. That a Church which obeys the secular power, instead of commanding it, cannot be a divine institution.¹
28. Q. Is there any recognition of Christianity in the American Constitution?
A. No. The word "God" or "Christian" is not mentioned in the American Constitution.²
29. Q. Have the Protestants ever persecuted in the name of religion?
A. Almost as much as the Catholics, but the Protestants are ashamed of their past persecutions.³
30. Q. Were the persecutors, whether Catholic or Protestant, always bad men?
A. No. It was frequently their sincerity which led them to persecute. Believing sincerely that heresy would cause damnation of souls, they used both fire and sword to exterminate it.⁴

prejudicial to his jurisdiction and dignity royal." Here we have the first clear pronouncement of the supremacy of the Secular over the Spiritual state. The Westminster divines, who formulated one of the most autocratic creeds, presented the same to Parliament as "their humble advice."

¹ Formerly the Church met this objection with the plea that the King was the "anointed terrestrial Governor under Christ, and that obedience to him was obedience to God." But the force of this argument has passed away with the "divine right" of kings. The modern State exercises its authority as coming from Man—not as coming from God.

² George Washington, in his message to the Senate, in 1776, stated that the American Government was "in no sense founded on the Christian religion."

³ Schaff, *Creeds of Christendom*.

⁴ It has also been suggested that the heretic was burned at the stake because it was easier to silence him by fire than by arguments. The Church in those days claimed the right to kill all whom it could not convert. Consult *Story of the Crusades, the Inquisition, etc.*

31. Q. Why is not heresy denounced to-day as vehemently as before ?
A. Because we have learned that honest doubt is more religious than blind belief.¹
32. Q. Can a man who does not know how to doubt know how to believe ?
A. Not intelligently.
33. Q. What do we call the faith that is unintelligent ?
A. Superstition.
34. Q. Analyse and define superstition.
A. To attribute to an object virtues or powers which it does not possess is a superstition.
35. Q. Give an example.
A. To carry on one's person a chain, an image, or a crucifix, believing it to possess beneficent powers or virtues, would be a superstition.
36. Q. What is an object called when invested with imaginary virtues ?
A. A fetish.

¹ "There lives more faith in honest doubt,
Believe me, than in half the creeds "

(Tennyson, *In Memoriam*, xcvi.).

CHAPTER X.

THE LIBERAL CHURCH

1. Q. How do the Liberal Churches differ from the orthodox ?
A. The Unitarian and other Liberal Churches submit, in a measure, the doctrines of religion to the test of reason.
2. Q. Do not the orthodox do the same ?
A. Not to the same extent, for they believe that revelation is a higher authority than reason.
3. Q. What are the beliefs of the Liberal Churches ?
A. It is very difficult to tell, for the Liberal Churches follow neither revelation nor reason exclusively, but try to do a little of both.
4. Q. Cannot revelation be reconciled with reason ?
A. When revelation agrees with reason, there is only reason. It is when it disagrees with reason that there is, or is thought to be, also a revelation.
5. Q. Illustrate your meaning.
A. When revelation teaches that man is mortal, it is only repeating what we know ; but when it teaches that man was created perfect, it teaches what is contrary to our reason or experience, and so becomes or assumes the character of a revelation.
6. Q. What are some of the orthodox doctrines which Liberal Churches reject ?
A. The atonement ; eternal punishment ; plenary inspiration of the Bible ; a personal devil ; total depravity, etc.
7. Q. Mention a few of the orthodox doctrines which the Liberal Churches accept ?
A. A personal God ; the sinlessness of Jesus ; immortality of the soul ; the duty of prayer ; the superiority of the Bible to any other literature, and the rites of baptism and communion. Some Liberal Churches are more rationalistic than others.
8. Q. How do the Liberal Churches prove their position ?
A. Generally from the Bible.

9. Q. How do the orthodox prove theirs ?
A. Exclusively from the Bible.
10. Q. What is the main emphasis of the Liberal Churches ?
A. They make little of theology, and a great deal of character.
11. Q. Are the Liberal Churches growing ?
A. Not numerically, but their influence has been large in the religious world. They have compelled the orthodox to abandon many crude and foolish beliefs and practices, and have helped to withdraw the attention of people from theology to science, philosophy, and ethics. The Liberal Churches have rendered Religion the inestimable service of recalling her from barren dialectics to concrete realities.
12. Q. What other religious movements are there in this country ?
A. Spiritualism, Theosophy, Christian Science, etc.
13. Q. What do Spiritualists teach ?
A. That we can communicate with the spirits of the dead.
14. Q. How do they attempt to prove the claim ?
A. By quotations from the Bible, and the testimony of men and women now living.
15. Q. Who are these ?
A. Generally mediums, who make their living by giving séances or sittings.
16. Q. What is the reputation of these mediums ?
A. It is not of the very best.
17. Q. What is Theosophy ?
A. The doctrine that there are "wise men," or "adepts," or "masters," who have become divinities, and who direct human affairs and reveal the future to the living.
18. Q. What are the other doctrines of Theosophy ?
A. The doctrine of Karma or Justice, and of Reincarnation.¹
19. Q. What is the value of Theosophy as a religion ?
A. It is a mere speculation.
20. Q. What is Christian Science ?
A. The belief that a certain New England woman has recently received a special revelation from God.

¹ "We reap in this life as we have sown in some previous existence" is the fundamental idea in Buddhism, and in all the religious philosophies of the Orient.

21. Q. State the nature of the revelation.
A. Nothing exists but God; God is health and purity; therefore disease and sin are illusions.
22. Q. Is that logical?
A. No; because, if God is all, *whose* illusions then are sickness and sin?
23. Q. Is disease an illusion of the "mortal mind"?¹
A. Disease is the effect of a cause or causes, such as drunkenness, debauchery, dirt, etc. If these causes are illusions, then are their effects illusious too.
24. Q. Can the evil effect of drunkenness, or dirt, be treated away without first removing their causes?
A. It is not possible.
25. Q. What else do Christian Scientists claim?
A. They claim to treat successfully, for a sum of money, all manner of diseases except those pertaining to surgery.²
26. Q. What do Christian Scientists do with money?
A. They use it for the necessary wants of the body.
27. Q. Do the Christian Scientists believe in the body?
A. No.
28. Q. What would be an impartial judgment of Christian Science?
A. Like all human systems, it contains both truth and error.
29. Q. Have we any religious movements in this country from which the supernatural element is altogether absent?
A. There are the Ethical, Positivist, and other rationalistic organisations, which make science the highest authority in matters of faith and conduct.
30. Q. What is the nature of their teaching?
A. It is purely practical. To make the highest use of this life without any reference to a life before, or a life after; without any reference, either, to gods, demous, heaven, or hell.
31. Q. Do they deny God and the future?
A. No; because they know that they do not know enough, as yet, on these questions to speak definitely and positively about them.

¹ The Christian Scientists, by calling evil "mortal mind," have only changed the name without doing away with the thing.

² See Mrs. Eddy's defence for going to a dentist ("Miscellaneous").

32. Q. Is that a proper attitude of the mind ?
A. Yes, and it is also the most hopeful, for until we know our ignorance we will not seek for knowledge.¹
33. Q. Is knowledge of your ignorance the beginning of wisdom ?
A. Yes, and the promise of coming enlightenment.²

¹ " Nothing keeps a man from knowledge and wisdom like thinking he has both " (Sir Wm. Temple).

² As this Catechism is written from the standpoint of the non-supernatural, it will be unnecessary to give in this place a fuller exposition of the philosophy of these Independent Societies.

CHAPTER XI.

THE CREEDS

1. Q. What is a creed ?
A. A rule of faith, or an authoritative expression of the doctrines of a Church.¹
2. Q. What is the origin of the word ?
A. It is taken from the first word in the Apostles' Creed (*credo*—I believe).
3. Q. What is the origin of the idea ?
A. The differences and disagreements among believers are responsible for the creeds of Christendom.²
4. Q. How early did dissensions arise in the Church ?
A. The first dissension was between the Apostles Peter and Paul ; the former representing the Jewish, and the latter the Gentile, party in the Church.
5. Q. Was the dissension serious ?
A. The Apostle Paul considered it so ; for he charged Peter with dissimulation, hypocrisy, and *unrighteous* conduct.³
6. Q. What was the primary object of a creed ?
A. To enforce uniformity of belief, and to excommunicate the heretics.⁴
7. Q. What, then, did these creeds really try to do ?
A. To prevent anybody from thinking independently.
8. Q. Which is considered the oldest Christian creed ?
A. The Apostles' Creed, which we know for certain was not written by the Apostles.

¹ Called also a "symbol," or "confession" of faith—*Symbolicum Apostolicum*.

² It is claimed that Jesus called for a creed when he said : " Every one who will confess me before men, him will I also confess before my father who is in heaven " (Matt. x. 32, 33 ; Rom. x. 9, 10).

³ Read the Epistle of Paul to the Galatians ; and also the first chapters of Revelation and the Acts of the Apostles.

⁴ Heresy is from a Greek word, and means " to examine," or " to select."

9. Q. Why, then, is it so called ?
A. For the same reason that the Gospels have been ascribed to the Apostles—to give them a greater authority.
10. Q. Who, then, is the author of the Apostles' Creed ?
A. The question of its authorship is involved in as great an obscurity as that of the Gospels.
11. Q. What are the fundamentals in this creed ?
A. Belief in the Trinity, the Immaculate Conception of Jesus, and the resurrection of the flesh.
12. Q. What proofs are given to establish these claims ?
A. None whatever. They are assumed to be true.
13. Q. Do the Mohammedans and Buddhists offer proofs for the doctrines of their creeds ?
A. No, they assume theirs too.
14. Q. How are we to know which assumption is the truth ?
A. The general custom has been to assume that the creed of the country one is born in is the true one.
15. Q. Is this a good custom ?
A. It is a very bad custom, for it deprives us of the greatest privilege of life—the pursuit of truth ; it makes truth a denominational or sectarian possession, the creature of climate and geographical boundaries ; and it makes us believe that, while we ourselves are inspired and chosen of God, all others are heathens.
16. Q. Tell me now of the Nicene Creed.
A. This was formulated by an assembly of 318 bishops in the city of Nicæa, near Constantinople, in the year 325. It excommunicated the Arians¹ and fulminated a curse against them for questioning the doctrine of the Trinity.
17. Q. What is the next important creed ?
A. The Athanasian, which is the most unpleasantly dogmatic and intolerant of all ancient creeds, and which is unique in its damnatory clauses. Yet it was held in high esteem,² and was sung as a hymn in all the Churches, and is still in force in official Christendom.
18. Q. What is the creed of the Greek Church ?
A. The Greek or the Eastern Church holds that the Holy Spirit proceeds from the Father only, and not also from

¹ The followers of Arius, who had heretical views about the divinity of Christ.

² See Schaff, *Creeds of Christendom*, vol. i., p. 41.

the Son. For this heresy it was excommunicated by the Catholic Church, but the Greek Church in return excommunicated the Catholic Church.

19. Q. What is the creed of the Church of England ?
A. It consists of Thirty-nine Articles adopted at various times, and finally authoritatively promulgated in 1628 by Charles I. as "His Majesty's Declaration."
20. Q. What was its object ?
A. "For the abolishing of diversity of opinions," and to drive out of the country popish and Calvinistic doctrines.
21. Q. Was subscription to the Thirty-nine Articles compulsory in England ?
A. Yes. Even the Universities of Oxford and Cambridge required of every graduate to subscribe to the Thirty-nine Articles before he could receive his diploma; a Bill of Parliament compelled all teachers and preachers to subscribe to them.
22. Q. Did this Bill accomplish its object ?
A. No.
23. Q. Can compulsion prevent people from thinking ?
A. It can only prevent them from teaching as they think.
24. Q. What are people who think one thing and teach another called ?
A. Hypocrites.
25. Q. What follows ?
A. That compulsion only makes hypocrites.
26. Q. Which is the most important of modern creeds ?
A. The Westminster Creed, formulated by an assembly consisting of one hundred and fifty members elected and convened by an Act of Parliament in 1643 during the brief reign of Presbyterianism in England.
27. Q. What are the leading ideas of this creed ?
A. Predestination, salvation of elect infants¹ only, the damnation of all peoples and nations not Christian, and the use of physical force against all heretics.
28. Q. How does it define the Doctrine of Damnation ?
A. As a "judicial decree of God" by which, "on account of Adam's fall"....."God was pleased to ordain" others "to dishonour and wrath"—to "everlasting death".....

¹ "Modern Calvinists admit the *probability* of salvation of all infants" (Schaff, vol. i., p. 795).

"and their number is so certain and definite that it cannot be either increased or diminished."¹

29. Q. How does it recommend physical force against heresy?

A. It says: "The civil magistrate hath authority, and it is his duty to take order that the unity and peace be preserved in the Church, *that all heresies be suppressed*, all abuses in worship prevented";² and Article IV., in Chapter XX., reads: "They (the heretics) may lawfully be called to account, and proceeded against by *the power of the Civil Magistrate*." And verse 109 of the Catechism states that the "Ten Commandments forbid tolerating a false religion."³

30. Q. Is an absolutely creedless Church possible?

A. No. An organisation, whatever its end, must have a platform, a declaration of principles, to serve as a bond of union, which, in the larger sense, is a creed.

31. Q. Why, then, are creeds denounced?

A. Not because they contain a statement of belief, but because the statement is narrow, intolerant, and unprogressive.

32. Q. Which is the best creed?

A. The creed which is most in accord with the facts of science, and which keeps abreast of the *increasing* knowledge of man.

33. Q. State the difference between a creed founded on authority and one founded on science.

A. The one is finished, the other is still growing; the one is an echo of the past, the other is an accent and a voice of the present; the one is a statement, the other is a *movement*; the one can be accepted only on conditions impossible to the reason, the other welcomes all the strain which the progress of knowledge can bring to bear upon it.⁴

¹ Original sin was considered so wicked that one of the clergymen declared: "If a man had never been born, he would yet have been damned for it."

² The American Churches have modified this clause.

³ "It is not only lawful to punish to the death such as labour to subvert the true religion, but the magistrates and people are bound to do so unless they will provoke the wrath of God against themselves" (John Knox, *History of Mary I., Queen of England*; E. P. Dutton & Co.).

⁴ "There is a fire-fly in the southern clime,
Which shineth only when upon the wing.
So is it with the mind: when once we rest,
We darken."
—BAILEY, in *Festus*.

84. Q. Should we ever subscribe to a creed which forbids freedom of thought and speech?
- A. No. The dignity of man is in his reason, the dignity of reason is in freedom; to destroy freedom is to destroy reason, and without reason we would cease to be human.¹
85. Q. Why is freedom of speech indispensable?
- A. Because without freedom we can never know whether the priest or the teacher says what he wishes to say, or only what he *must* say.

¹ "Yet one thing there is that ye shall not slay,
Even thought." —SWINBURNE.

CHAPTER XII.

THE CLERGY

1. Q. What is a clergyman ?
A. A man who has received " holy orders."
2. Q. From whom has he received them ?
A. From the Church, and by the laying-on of hands.¹
3. Q. Why is he called a clergyman ?
A. The word is derived from "clerus" or "clericus," which in Greek, signifies a "lot," or anything by which a vote is cast.
4. Q. What does this signify ?
A. That the clergymen were elected by the casting of lots.²
5. Q. What other explanation is there ?
A. It has also been supposed that the Greek word *clericus* means "rank," which term was applied to the Apostles and the early teachers to indicate their authority.³
6. Q. By what other names is a clergyman known ?
A. Priest, prelate, pontiff, bishop, pope, etc.
7. Q. What do the clergy claim ?
A. That Jesus, the King, has committed "the keys of the Kingdom of Heaven to officers of the Church," by virtue whereof "they have power respectively to retain and remit sins"....."to shut that kingdom," and "to open it."⁴

¹ "Receive the Holy Ghost by the imposition of our hands" is the formula of ordination.

² This was the opinion of St. Augustine and also of Jerome. St. Matthias was elected by the Apostles to take the place of Judas by casting lots. The usual custom was to write the names of the different candidates and put them in a box ; then, having offered prayers, the box was shaken, and the first name that fell out was considered "chosen of the Lord."

³ Bauer, the German scholar, is the advocate of this theory.

⁴ See Westminster Creed. The following words of Jesus are quoted both by Catholics and Protestants to establish this claim : "And I will give unto thee the keys of the kingdom of heaven, and whatsoever thou shalt bind on earth shall be bound in heaven, and whatsoever thou shalt loose on earth shall be loosed in heaven" (Matt. xvi. 19). Compare this with what is said in chapter on "Prayer" about controlling God.

8. Q. Have the priests exercised great power in the world ?
A. Yes, and have enjoyed also exceptional privileges.
9. Q. What were these privileges ?
A. Exemption from civil duties, taxes or contributions to public works. In many countries a clergyman, whatever his crime, could not be made to appear before a civil magistrate.¹
10. Q. What use have the clergy made of these privileges ?
A. On the whole, they have abused them, for which cause they have been deprived of nearly all of their old privileges.
11. Q. How can a man become a clergyman to-day ?
A. By submitting to an examination to prove his adherence to the creed of the Church to which he applies for admission.
12. Q. Are these examinations as strict as formerly ?
A. No, the candidates for holy orders may now exercise what is called "mental reservation."
13. Q. What is that ?
A. It is the liberty, while subscribing to the creed just as it is, to read one's own meaning into it—to accept it as true theologically only, and not also philosophically. The candidate may answer the question, "Do you believe?" by "I do," while in his own mind he may add: "Not as it is commonly interpreted, but as I interpret it."
14. Q. Illustrate this by an example.
A. He may say, "I believe in the 'word of God,'" but mean by it not only the Christian Scriptures to which the creeds limit inspiration, but all that he considers true and pure wherever found. In the same way he may believe in the divinity of Christ, meaning by it that all good and noble men are divine.
15. Q. Do the people always understand his meaning ?
A. If he wished to be understood, he would not resort to "mental reservation."
16. Q. Should a clergyman not in full accord with his Church continue to remain in its fellowship ?

¹ Comp. *Benefit of Clergy in England*. In Catholic countries, if anyone struck a priest he was excommunicated for life, absolution being withheld from him until the hour of death.

- A. To a conscientious and fine-fibred soul, such a relation would be intolerable.¹
17. Q. But should not a clergyman wait until his people are ready for the new ideas?
- A. Yes, if he means to *follow* his people, but not if he wishes to be a teacher and a guide.

¹ James Martineau quotes the praise of a Frenchman lavished on this class of clergymen: "Our clergy, to be sure, are all perjured; but, then, how charmingly liberal" (*Essays and Reviews*, vol. ii., p. 187).

CHAPTER XIII.

PRAYER AND SALVATION

1. Q. What is prayer ?
A. It is a supplication addressed to God, or a desire for communion with him.
2. Q. Do people ever pray also to the laws of nature ?
A. No.
3. Q. Or to great ideals or visions ?
A. No ; prayer is always addressed to a person, because a person alone can hear and answer prayer.
4. Q. Do all who pray believe in a personal God ?
A. They should ; for if God be not a person, he would not be different from the laws of nature or the ideals of the mind.
5. Q. What is a person ?
A. One who knows that he is himself and no other.
6. Q. Can God be a person ?
A. He cannot be a God and a person at the same time.
7. Q. Why ?
A. To be a god is to be infinite ; to be a person is to be finite. The infinite cannot be conscious of itself, for such consciousness would imply that it distinguished itself from something else, and was not, therefore, the "All !" To be able to say, "This is I," the infinite must also be able to say, "That is not I," which would mean that the infinite was not infinite.
8. Q. Can there not be an infinite person ?
A. No, as there cannot be an infinite finite.
9. Q. How did the habit of prayer originate ?
A. It originated in the desire of people to appease the anger and secure the favour of invisible beings.
10. Q. Give an example.
A. At the close of a long drought the Pope, Archbishop, or minister composes a prayer for rain, which is addressed to God, believing that he permitted the drought and can be entreated to discontinue it.

11. Q. Are such prayers ever answered ?
A. Yes, because a drought cannot last for ever.
12. Q. Does it not happen frequently that while some are praying for one thing others are as earnestly praying for just the opposite ?
A. Yes, people are asking God *to do* in one place what others somewhere else are just as earnestly entreating or advising him *not* to do.
13. Q. What do such prayers imply ?
A. That God is an individual ready to adapt himself to the convenience of everybody.
14. Q. Has God any control over the weather ?
A. No more than over the law of gravity.
15. Q. Do people ever pray to have the law of gravity suspended for their sake ?
A. Not any more.
16. Q. Why ?
A. They have learned that the law of gravitation is inviolable.
17. Q. When will they stop praying about the weather ?
A. When they learn that the laws governing it are equally inviolable.
18. Q. Is it as useless to pray for wisdom, knowledge, and goodness ?
A. Yes ; for these virtues cannot be given to us—they are acquired through long effort.
19. Q. But does not prayer help some people to acquire these gifts ?
A. They *think* it does, just as an Asiatic thinks he owes all his good fortune to the amulet on his person or the tattoo on his arm ; or the zealot that he owes his to the Virgin Mary, or to the candles he burns on some saint's altar.
20. Q. What is meant by prayer as praise ?
A. God, it is said, demands that his creatures should address him continually in terms of glorification and endearment ; and, therefore, one object of prayer is to satisfy this desire of God.
21. Q. Does such an idea do honour to any person ?
A. No. A really great and good being would grow weary of the genuflections and laudations of interested votaries.

22. Q. Where did such an idea come from?
 A. From the Orient, where the sultans can only be approached with prostrations, presents, and salaams.
23. Q. What is the moral argument against prayer?
 A. It makes men look for help from without and by miracle, and thus cripples and maims their manhood.
24. Q. What else?
 A. It is an attempt to corrupt God by offering him bribes. When we ask God to do better for us than we deserve, we ask him to do us a favour for which we offer sweet words of praise, build churches, give money, go on a pilgrimage, etc.
25. Q. Is prayer, then, a petition for a favour?
 A. Yes, because it is said that we have no rights, and that God can, if he so wishes, refuse us everything.
26. Q. Is salvation a favour too?
 A. Yes, as shown by the malefactor on the cross, who received the gift of salvation a few moments before he expired.
27. Q. What are the views of Paul on this question?
 A. He says: "That a man is justified by faith without the works of the law, for to him that worketh not, but believeth, his faith is counted for righteousness"; the inference being that we cannot, by anything we do, merit salvation. And the Westminster Creed says: "Much less can men not professing the Christian religion be saved, *be they never so diligent to frame their lives according to the light of nature*; and to assert and maintain that they can is very pernicious, and is to be detested."¹

¹ Luther said: "Every doer of the law and every moral worker is accursed, for he walketh in the presumption of his own righteousness. He that says the gospel requires works for salvation, I say, flat and plain, he is a liar" (*Table Talk*). And John Wesley, the founder of the Methodist Church, was as positive in his opinion that salvation is not something which we may conquer for ourselves, for he says: "We are well pleased that our parishioners grow more diligent and honest, that they practise both justice and mercy; in a word, that they are moral men; but the truth is, the Methodists know and teach that *all this is nothing* before God" (*John Wesley's Works*, vol. iii., p. 99). "Salvation is an act of mercy, and may be granted even to one who has no merit" (*Catholic Belief*, p. 363; Father Lambert). The doctrine of salvation by grace alone is unmistakably taught in the following texts from the New Testament: John vi. 44; Ephs. ii. 8. This is also the position of St. Augustine in his work on "Grace." It is this doctrine which has placed so high a value on the sacraments and offices of the Church, as well as the mediation of the priest as a means of salvation.

28. Q. What is the effect of such teachings?
A. They make morality, character, and justice secondary to Church rites, prayers, and dogmas,¹ and they imply also that we may impose our will upon God.
29. Q. Explain that point.
A. The Atheist says he is without God; the Deist says, There is a God, but he has no relations whatever with us; the Theist says, God exists and rules over men, but by prayers and praise, penance and sacrifices, we can influence his will. Consequently, all these views amount to a practical denial of God.
30. Q. How?
A. There is little difference between a God who does not exist and one who exists only outside of human affairs, or one who can be influenced by us.
31. Q. What is the least desirable form of prayer?
A. Public prayer, because it is not silent, but loud; not spontaneous, but formal; not personal, but professional; not short, but long; not free, but compulsory; and because it is oftener addressed to the congregation than to God. Jesus said distinctly that we should not pray in public.
32. Q. What is true prayer?
A. To learn diligently the laws of life, and to obey them.
33. Q. What should we teach people to do instead of praying?
A. To think.²

¹ "The Catholic religion is an order to obtain heaven by begging, because it would be too troublesome to earn it. The priests are the brokers for this transaction" (Zimmern's *Life of Schopenhauer*, p. 124). This criticism applies with equal force to the Protestant denominations.

² The late Master of Balliol said that the longer he lived the less he prayed, but the more he thought. Read also Emerson's essay on "Self-Reliance." The lost, according to Dante, are those who can no longer think. Kant says that "He who has made great moral progress ceases to pray, for honesty is one of his principal maxims." He said also that to pray before the people is "to appeal to their sensuality"—it is to "stoop down to them."

CHAPTER XIV.

DEATH

1. Q. How long has there been death in the world?
A. As long as there has been life.¹
2. Q. What is the relation of life to death?
A. They are different manifestations of the same power.
3. Q. What is that?
A. Movement.
4. Q. What happens to the body at death?
A. It begins to return to life again. The particles of which the body is composed dissolve, separate, and pass into their original elements—water, lime, iron, phosphorus, etc. Thus disengaged, they mix with the sun and the air, and, having renewed their youth, return to combine again in new bodies.
5. Q. Do they always meet in the same body?
A. No. If they did, the dead would rise again.
6. Q. Is death a punishment?
A. Not any more than life.
7. Q. Why do people fear death?
A. They have been taught to look upon it as the curse of God for the sins of man, and that it marks the beginning of an irrevocable doom; but people are rapidly outgrowing these fears.
8. Q. Is death desirable?
A. Not until we know more about it.
9. Q. But is it always a misfortune?
A. When it ends a useful career, separates lovers, and makes orphans of children, it seems a calamity. But when it brings deliverance to the weary, the aged, and the suffering, it is a blessing.²

¹ This is true in a general sense, and as applied to recognised forms of life. To speak exactly, something must have lived before anything could die; while some of the very simplest organisms do not die, but multiply by dividing into halves, each of which becomes a whole organism.

² "Among the many half-pagan legends that were connected with Ireland during

10. Q. Could there be any progress in the world without death ?
A. As the old leaves must fall from the branches to make room for the new and greener ones, so must we die to make place for the better men and women of the future.
11. Q. How may we learn to overcome the fear of death ?
A. 1. By trying to accommodate ourselves to those laws of nature which will not accommodate themselves to us.
2. By cultivating in us the same mind that was also in the bravest and noblest of our race. 3. By remembering that we are here to learn how to live, and not how to die.
12. Q. What is the philosophical conception of death ?
A. That it either secures happiness or ends suffering.
13. Q. How did Socrates view death ?
A. That if it ended life, it was not a misfortune ; but that if it freed the soul from the body, it certainly was " the greatest of boons."¹
14. Q. Is it wrong to mourn for the dead ?
A. It is natural ; for, while we must face our fate like men, we must also feel it like men.
15. Q. How may we triumph over death ?
A. By loving and serving some noble cause, in which we may continue to live long after we have passed away.
16. Q. Who have been the greatest benefactors of man ?
A. Those who have relieved his mind of one more fear, and helped him a step further on the road to mental emancipation.

the Middle Ages, one of the most beautiful is that of the islands of life and death. In a certain lake in Munster, it is said, there were two islands; into the first death could never enter, but age and sickness, and the weariness of life, were all known there, and they did their work until the inhabitants, tired of their immortality, learned to look upon the opposite island as upon a haven of repose ; they launched their barks upon its gloomy waters ; they touched its shore, and they were at rest" (Lecky's *History of European Morals*, vol. i., p. 214).

¹ " There is no subject on which the sage will think less than death " (Spinoza, *Ethics*, iv., 67). " Death does not concern us, for when we are, death is not, and when death is, we are not " (Epicurus, *Diog. Laert.*, x. 27). Noble minds are free from " the superstitious fears that are the nightmare of the weak " (Lecky, *History of European Morals*, vol. i., p. 213). To lose what we cannot miss is not an evil.

CHAPTER XV.

IMMORTALITY

1. Q. What does immortality mean?
A. Deathlessness, or life without end.
2. Q. Does it mean that men will never die?
A. No; but that they will live for ever after death.
3. Q. In the same form as now?
A. That is a disputed question.
4. Q. Will the body, too, live again and for ever?
A. It is generally claimed that the soul alone is immortal.
5. Q. What is the soul?
A. According to popular views it is a spark, a flame, or an essence temporarily lodged in the body, but which, at death, returns to its author—God.
6. Q. Have all men a soul?
A. It is so believed.
7. Q. Have the animals a soul too?
A. Few people believe they have.
8. Q. Can the body live without the soul?
A. No.
9. Q. Can the soul without the body?
A. People think it can.
10. Q. Have they any knowledge of it?
A. Not exactly.
11. Q. Has anything been ever seen without a body of some kind?
A. No; though some claim to have seen spirits.
12. Q. Can we see anything that has neither form, colour, nor extension?
A. It is not possible.
13. Q. Can we even *think* of a spirit without giving it form and body in our mind?
A. We cannot.

14. Q. What follows ?
A. That soul and body are, so far as we have a right to speak or think, inseparable, and that, if one is immortal, the other must be so too.
15. Q. Is the desire for immortality general ?
A. Yes, but not universal. The ancient Jews evidently had no clear concept of another life ; neither have the Chinese of to-day.
16. Q. State the accepted doctrine of immortality.
A. The soul, at death, leaves the body and goes to another world, to live there evermore.
17. Q. What is this other world also called ?
A. Heaven, Paradise, the Isles of the Blest, and so on.
18. Q. What kind of a place is it ?
A. There are as many different views of heaven as there are religions.
19. Q. What are some of them ?
A. To the Buddhist, heaven means the cessation of all desire, or Nirvana ; to the Mohammedan, it is a place of pleasure and dance ; to the Christian, an eternal Sabbath.
20. Q. Is everybody expected to go to heaven ?
A. No ; only those, it is claimed, who have the true faith ; all others, according to the creeds, will go to hell.
21. Q. Where is that ?
A. That, too, is in the other world.
22. Q. Will good and great men and women who have not the " true faith " be excluded from heaven ?
A. The creeds say they will.¹ And hence the hope of immortality for the majority of people is not a *hope* at all.
23. Q. Are heaven and hell both eternal ?
A. That is the ordinary belief.²
24. Q. What further view is there of the other world ?
A. That there is neither a heaven nor a hell, but that the other world or life is the continuation of this.
25. Q. Will it be a better world than this ?
A. It will if we make it so.

¹ " Peoples earth with demons, hell with men,
And heaven with slaves." —SHELLEY.

² Henry Ward Beecher was the first among modern orthodox preachers to protest against this doctrine (comp. the Author's *The Passing of Orthodox Religion*).

26. Q. Does this view deny the possibility of a conscious hereafter ?
 A. No, but it leaves the question open.
27. Q. What are the arguments in favour of a conscious immortality ?
 A. One of the strongest is that the belief in it is universal.¹
28. Q. Does that prove it ?
 A. No, many universal beliefs have turned out to be illusions—*e.g.*, the belief that man and the world were specially created by divine fiat; that the sun, the moon, and the stars were made to give light to our planet, and to revolve about it; and the belief in witchcraft, magic, alchemy, etc.²
29. Q. What is the next argument ?
 A. It is said that man, as a soul or a thinking mind, is too precious not to be preserved for ever.
30. Q. Does that prove his immortality ?
 A. Not any more than Cæsar's opinion of himself proved his divinity.
31. Q. What is the next argument ?
 A. The moral argument, which is the strongest.
32. Q. State that.
 A. As there is much undeserved suffering in this world, we instinctively look forward to another where all accounts shall be squared; where the tears shall be wiped from the eyes of the sorrowing, and lovers shall meet again.
33. Q. Is this argument conclusive ?
 A. It is very strong, but not conclusive. If God is as good and as powerful now as he will ever be, and yet permits crime and sorrow, there is no reason to expect a radical change in his management of the universe at some future time.
34. Q. What is the proper conception of an after life ?
 A. That all we now think, say, and do will go to build the world of the future, in which we shall all live again and for ever as influences, tendencies, examples, and moral

¹ Since all religions maintain immortality, then, if there is really no such thing, the whole world is deluded. This is the argument which Pomponatius of Padua answered by saying: "As there are three religions—those of Moses, Jesus, and Mohammed—they are all three false, and then the whole world is deluded; or two, at least, are false, and then the majority are deluded."

² Even Lord Bacon, the founder of the Inductive Method, and Sir Thomas Browne and Sir Matthew Hale shared the popular faith in witches.

and intellectual forces. We are the continuation of the life that has preceded us, and the source of the life that shall follow us. The soul of man is the sum of all his faculties and powers, his thoughts and acts and affections. These, no more than the particles which compose his body, perish at death, but become incorporated into new forms of life, and so on for ever.¹

95. Q. What effect would such a belief have upon us ?

A. It would encourage us to cultivate and treasure up only what is true and noble—to become the brain and soul of the future.²

¹ "Death appears under this aspect no longer as an annihilation ; for our soul is as little wiped out as the law of causation can be suspended" (Paul Carus, *Whence and Whither*, p. 135).

² When we have outgrown the illusion that existence is limited to our individual person, when we expand our being into that of humanity, which is immortal, and through which we continue to live for ever—death will, indeed, be no more than "the blinking of an eyelid, which does not interrupt sight."

CHAPTER XVI.

THE CHIEF END OF MAN

1. Q. What is the greatest thing in the world?
A. Life with honour; for without life we cannot have anything else that is good.
2. Q. What, then, is the duty of man?
A. To seek those things which increase and elevate life.
3. Q. What do we call those acts which make life larger and better?
A. Virtues; and those which diminish and degrade life, vices.
4. Q. By what other names are they called?
A. Right and wrong; moral and immoral; good and bad.
5. Q. How do we learn what is vice and what is virtue?
A. Through experience; the accumulated experience of humanity, as well as our own.
6. Q. Do we learn all we know about right and wrong from experience?
A. Positively all.
7. Q. Do we not need a revelation to tell us infallibly about right and wrong?
A. No. If we ourselves cannot discern the right from the wrong, a revelation will be of no more help to us than to the animals.
8. Q. What other proofs could you offer that a revelation is not necessary for the purposes of the moral life?
A. A revelation is only an accident,¹ while the moral life is a law of human nature.
9. Q. What is a law?
A. An obligation imposed upon us by a higher authority.²
10. Q. What constitutes authority?
A. Superior knowledge, goodness, and power.

¹ An event which happens only once and under irregular or miraculous conditions may be termed an accident.

² "Law" is used also in the sense of a formula, or an observed mode of action.

11. Q. Give me some examples.
A. The authority of the parent over the child ; of the teacher over the pupil ; of the State over the individual ; of mankind over the State, and of Nature over all.
12. Q. What is Nature ?
A. The sum of all the forces which keep the world in movement.
13. Q. Why is the authority of Nature the highest ?
A. She is the first and oldest parent and teacher of man.
14. Q. Why obey Nature ?
A. Because we have learned through the experience of ages that we *must*.¹
15. Q. What if we do not ?
A. She will replace us quickly by those who will.
16. Q. There is no alternative, then ?
A. None whatever.
17. Q. What provision has Nature made to induce obedience to her laws ?
A. She has joined together action and reaction, cause and consequence.
18. Q. Explain this.
A. To each thought, word, and act Nature has given the same power she has to the seed—to grow and bear fruit after their kind.
19. Q. What other means does Nature employ to compel obedience ?
A. She has lodged in us a representative of her authority, which we may call "conscience."
20. Q. Analyse and define it.
A. Conscience is the mingled voices of the Past and the Future in each individual. Man is the vibrating focus of the collective experience and tendencies of the Past, and the hopes, visions, and ideals of the Future—the *pressure* of the one and the *attraction* of the other find a voice in him ; this voice is conscience.²

¹ "But I follow cheerfully,
And did I not—
Weak and wretched, I must follow still" (Epictetus).

² Our habits ally us with the past, our freedom with the future ; the conflict between habit or instinct and freedom or will is the struggle between the Past and the Future for supremacy. Man is the battleground of the struggle. Professor Clifford defines conscience as "the accumulated instincts of the race pouring into each one of us, and overflowing as if the ocean were poured into a cup" (p. 134).

21. Q. Is that the commonly accepted definition?
A. No. Many people believe conscience is "the voice of God in the soul"; but, as this voice is not infallible, nothing is gained by calling it the "voice of God."
22. Q. What other theories are there?
A. Some philosophers teach that conscience is a separate, spiritual faculty or organ, whose function it is intuitively to tell the right from the wrong. It is also held that there is such a thing as the Moral Law, which is eternal and absolute, and whose commandments are imperative.¹ But these are metaphysical speculations.
23. Q. What is the teaching of Evolution on this subject?
A. That just as light fashioned the eye, and sound the ear, with all their wonderful mechanism, human relations formed, through the education and experience of ages, the moral sense; and that morality is acquired just as language, music, love, or humanity.
24. Q. Why should we do the right according to this theory?
A. For its utility, beauty, and joy.
25. Q. Is it obligatory to do the right?
A. Yes, if we wish the well-being of everybody as well as of ourselves.
26. Q. What is the reward of goodness and justice?
A. To be just and good.²
27. Q. But will we be just and good without *future* rewards and punishments?
A. If we will not, others will, and by the law of the Survival of the Fittest theirs will be the kingdom and the power and the future.
28. Q. Is the right increasing in the world?
A. Through many oscillations backward and forward, mankind is gaining steadily, though very slowly.
29. Q. Why are there still wrong and suffering in the world?
A. Because we do not obey all the laws of Nature.
30. Q. Why do we not obey them?
A. Largely from ignorance.
31. Q. Is it right that we should be punished for our ignorance?
A. Yes, if it is the only way we can be made to learn and observe these laws.

¹ The Categorical Imperative of Kant has been likened to a God *made to order*,

² "*deus ex machina*."

³ "Do you seek any greater reward?" (Epictetus).

32. Q. What is the thing we need most to make the world and ourselves better ?
A. KNOWLEDGE ; for we cannot do anything unless we know how to do it ; and, in order to act in the best way, we must know what is for our highest good.¹
33. Q. What else will knowledge do ?
A. It will employ the immense forces now stagnating in ignorance, replace prejudice by sympathy, oppression and greed by justice and humanity, war and bloodshed by peace and brotherhood.
34. Q. What is the saviour of the world—the true Christ of humanity ?
A. *Truth !* which is the most perfect knowledge we can possess ; and confidence that such knowledge may be depended upon for the highest aims of life.
35. Q. What, then, is the chief end of man ?
A. To seek the supreme wisdom by the reason, and practise the sovereign good by the will,² *and for the good of humanity.*

¹ The aim of science is knowledge, the aim of art is action ; but we can neither produce nor create without knowledge. It is equally irrelevant to insist that a correct philosophy of life is unnecessary for the ends of Virtue. Thought or Knowledge is the seed of which Conduct is the flower and fruit. It is true, however, that our knowledge improves and increases as often as we "do" what we "know." Charlemagne, in a letter to Sturm, the Abbot of Fulda, wrote : "Although action is better than knowledge, still it is impossible to act without knowledge."

² Giordano Bruno and De Tocqueville.

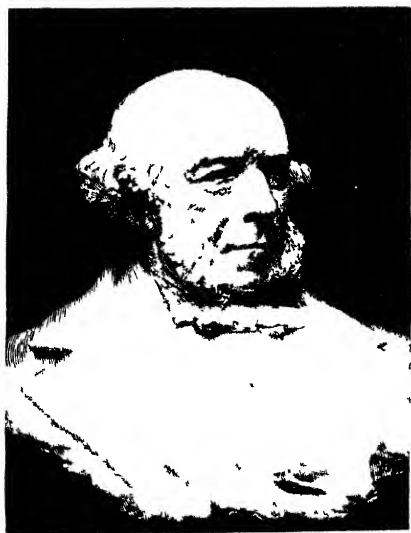
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THE SYNTHETIC PHILOSOPHY**

SPENCER'S ESSAYS

(A SELECTION)



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**No. 30 of this Series will be "AN EASY OUTLINE OF EVOLUTION,"
by DENNIS HIRD, M.A.**

HERBERT SPENCER'S ESSAYS
(A SELECTION)

OF the Essays here reprinted, five were written in the decade between 1850 and 1860, when Spencer was gradually working his way along many converging lines of investigation to the fundamental principles of the *Synthetic Philosophy*. That on "The Development Hypothesis" (1852) is historically important as his first declaration of adherence to the evolutionary view. In "Progress: Its Law and Cause" (1857), the theory of evolution as a universal process is set forth at length, and, though only a single aspect of this process is recognised in it that of the change from homogeneity to heterogeneity the essay remains an illuminating exposition of one side of the Spencerian formula (see *First Principles*, Pt. II., chap. xv., and especially § 119, note). The "Genesis of Science" (1854) and "Manners and Fashion" (1854) illustrate the writer's habit of approaching every subject he handled from the evolutionary point of view. In the suggestive little paper on "Use and Beauty" (1852) the reader will find a capital example of Spencer's power of lighting up afresh every topic he touched. The two remaining essays, belonging to the years of the *Synthetic Philosophy*, are polemical. That on "Morals and Moral Sentiments" (1871) is directed against misrepresentations of certain of his ethical principles. That on "Mill *versus* Hamilton" (1865) forms part of an "amicable controversy" with Mill on the ultimate test of truth, and is thus closely connected with the *Psychology*. In an essay (1853) on "The Universal Postulate" (the general doctrine of which was afterwards embodied in the *Psychology*, Pt. VII., chaps. xi., xii.), Spencer had challenged Mill's position in the matter. His rejoinder in the present essay to Mill's reply is particularly important because it serves to bring out the difference between his psychological principles and methods and those of the older empiricist school.

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ESSAYS BY HERBERT SPENCER

PROGRESS ITS LAW AND CAUSE

(1857)

THE current conception of progress is shifting and indefinite. Sometimes it comprehends little more than simple growth—as of a nation in the number of its members and the extent of territory over which it spreads. Sometimes it has reference to quantity of material products—as when the advance of agriculture and manufactures is the topic. Sometimes the superior quality of these products is contemplated—and sometimes the new or improved appliances by which they are produced. When again, we speak of moral or intellectual progress, we refer to states of the individual or people exhibiting it; while, when the progress of Science, or Art is commented upon, we have in view certain abstract results of human thought and action. Not only, however, is the current conception of progress more or less vague, but it is in great measure erroneous. It takes in not so much the reality of progress as its accompaniments—not so much the substance as the shadow. That progress in intelligence seen during the growth of the child into the man, or the savage into the philosopher, is commonly regarded as consisting in the greater number of facts known and laws understood; whereas the actual progress consists in those internal modifications of which this larger knowledge is the expression. Social progress is supposed to consist in the making of a greater quantity and variety of the articles required for satisfying men's wants, in the increasing security of person and property, in widening freedom of action, whereas,

rightly understood, social progress consists in those changes of structure in the social organism which have entailed these consequences. The current conception is a teleological one. The phenomena are contemplated solely as bearing on human happiness. Only those changes are held to constitute progress which directly or indirectly tend to better human happiness, and thus are thought to constitute progress simply *because* they tend to heighten human happiness. But rightly to understand progress, we must learn the nature of these changes, considered apart from our interests. Ceasing, for example, to regard the successive geological modifications that have taken place in the Earth as modifications that have gradually fitted it for the habitation of Man, and as *therefore* constituting geological progress, we must ascertain the character common to these modifications—the law, to which they all conform. And similarly in every other case. Leaving out of sight concomitants and beneficial consequences, let us ask what progress is in itself.

In respect to that progress which individual organisms display in the course of their evolution, this question has been answered by the Germans. The investigations of Wolff, Goethe, and von Baer, have established the truth that the series of changes gone through during the development of a seed into a tree, or an ovum into an animal, constitute an advance from homogeneity of structure to heterogeneity of structure. In its primary stage, every germ consists

of a substance that is uniform throughout, both in texture and chemical composition. The first step is the appearance of a difference between two parts of this substance; or, as the phenomenon is called in physiological language, a differentiation. Each of these differentiated divisions presently begins itself to exhibit some contrast of parts: and by and by these secondary differentiations become as definite as the original one. This process is continuously repeated—is simultaneously going on in all parts of the growing embryo; and by endless such differentiations there is finally produced that complex combination of tissues and organs constituting the adult animal or plant. This is the history of all organisms whatever. It is settled beyond dispute that organic progress consists in a change from the homogeneous to the heterogeneous.

Now, we propose in the first place to show, that this law of organic progress is the law of all progress. Whether it be in the development of the Earth, in the development of Life upon its surface, in the development of Society, of Government, of Manufactures, of Commerce, of Language, Literature, Science, Art, this same evolution of the simple into the complex, through successive differentiations, holds throughout. From the earliest traceable cosmical changes down to the latest results of civilization, we shall find that the transformation of the homogeneous into the heterogeneous, is that in which progress essentially consists.

With the view of showing that *if* the Nebular Hypothesis be true, the genesis of the solar system supplies one illustration of this law, let us assume that the matter of which the sun and planets consist was once in a diffused form; and that from the gravitation of its atoms there resulted a gradual concentration. By the hypothesis, the solar system in its nascent state existed as an indefinitely extended and nearly homogeneous medium—a medium

almost homogeneous in density, in temperature, and in other physical attributes. The first change in the direction of increased aggregation, brought a contrast in density and a contrast in temperature, between the interior and the exterior of this mass. Simultaneously the drawing in of outer parts caused motions ending in rotation round a centre with various angular velocities. These differentiations increased in number and degree until there was evolved the organized group of sun, planets, and satellites, which we now know—a group which presents numerous contrasts of structure and action among its members. There are the immense contrasts between the sun and the planets, in bulk and in weight; as well as the subordinate contrasts between one planet and another, and between the planets and their satellites. There is the similarly-marked contrast between the sun as almost stationary (relatively to the other members of the Solar System), and the planets as moving round him with great velocity: while there are the secondary contrasts between the velocities and periods of the several planets, and between their simple revolutions and the double ones of their satellites, which have to move round their primaries while moving round the sun. There is the yet further strong contrast between the sun and the planets in respect of temperature; and there is good reason to suppose that the planets and satellites differ from each other in their proper heats, as well as in the amounts of heat they receive from the sun. When we bear in mind that, in addition to these various contrasts, the planets and satellites also differ in respect to their distances from each other and their primary; in respect to the inclinations of their orbits, the inclinations of their axes, their times of rotation on their axes, their specific gravities, and their physical constitutions; we see what a high degree of heterogeneity the solar system exhibits, when compared with the almost complete homogeneity

of the nebulous mass out of which it is supposed to have originated.

Passing from this hypothetical illustration, which must be taken for what it is worth, without prejudice to the general argument, let us descend to a more certain order of evidence. It is now generally agreed among geologists and physicists that the Earth was at one time a mass of molten matter. If so, it was at that time relatively homogeneous in consistence, and, in virtue of the circulation which takes place in heated fluids, must have been comparatively homogeneous in temperature; and it must have been surrounded by an atmosphere consisting partly of the elements of air and water, and partly of those various other elements which are among the more ready to assume gaseous forms at high temperatures. That slow cooling by radiation which is still going on at an inappreciable rate, and which, though originally far more rapid than now, necessarily required an immense time to produce any decided change, must ultimately have resulted in the solidification of the portion most able to part with its heat—namely, the surface. In the thin crust thus formed we have the first marked differentiation. A still further cooling, a consequent thickening of this crust, and an accompanying deposition of all solidifiable elements contained in the atmosphere, must finally have been followed by the condensation of the water previously existing as vapour. A second marked differentiation must thus have arisen; and as the condensation must have taken place on the coolest parts of the surface—namely, about the poles—there must thus have resulted the first geographical distinction of parts. To these illustrations of growing heterogeneity, which, though deduced from known physical laws, may be regarded as more or less hypothetical, Geology adds an extensive series that have been inductively established. Investigations show that the Earth has been continually becoming more heterogeneous in virtue of the multiplication of sedi-

mentary strata which form its crust; also, that it has been becoming more heterogeneous in respect of the composition of these strata, the later of which, being made from the detritus of the earlier, are many of them rendered highly complex by the mixture of materials they contain; and further, that this heterogeneity has been vastly increased by the action of the Earth's still molten nucleus upon its envelope, whence have resulted not only many kinds of igneous rocks, but the tilting up of sedimentary strata at all angles, the formation of faults and metallic veins, the production of endless dislocations and irregularities. Yet again, geologists teach us that the Earth's surface has been growing more varied in elevation—that the most ancient mountain systems are the smallest, and the Andes and Himalayas the most modern; while in all probability there have been corresponding changes in the bed of the ocean. As a consequence of these ceaseless differentiations, we now find that no considerable portion of the Earth's exposed surface is like any other portion, either in contour, in geologic structure, or in chemical composition; and that in most parts it changes from mile to mile in all these characters. Moreover, there has been simultaneously going on a differentiation of climates. As fast as the Earth cooled and its crust solidified, there arose appreciable differences in temperature between those parts of its surface more exposed to the sun and those less exposed. As the cooling progressed, these differences became more pronounced; until there finally resulted those marked contrasts between regions of perpetual ice and snow, regions where winter and summer alternately reign for periods varying according to the latitude, and regions where summer follows summer with scarcely an appreciable variation. At the same time the many and varied elevations and subsidences of portions of the Earth's crust, bringing about the present irregular distribution of land

and sea, have entailed modifications of climate beyond those dependent on latitude; while a yet further series of such modifications have been produced by increasing differences of elevation in the land, which have in sundry places brought arctic, temperate, and tropical climates to within a few miles of one another. And the general outcome of these changes is, that not only has every extensive region its own meteorologic conditions, but that every locality in each region differs more or less from others in those conditions: as in its structure, its contour, its soil. Thus, between our existing Earth, the phenomena of whose crust neither geographers, geologists, mineralogists, nor meteorologists have yet enumerated, and the molten globe out of which it was evolved, the contrast in heterogeneity is extreme.

When from the Earth itself we turn to the plants and animals which have lived, or still live, upon its surface, we find ourselves in some difficulty from lack of facts. That every existing organism has been developed out of the simple into the complex, is indeed the first established truth of all; and that every organism which existed in past times was similarly developed, is an inference no physiologist will hesitate to draw. But when we pass from individual forms of life to Life in general, and inquire whether the same law is seen in the *ensemble* of its manifestations—whether modern plants and animals are of more heterogeneous structure than ancient ones, and whether the Earth's present Flora and Fauna are more heterogeneous than the Flora and Fauna of the past,—we find the evidence so fragmentary, that every conclusion is open to dispute. Three-fifths of the Earth's surface being covered by water; a great part of the exposed land being inaccessible to, or untravelling by, the geologist: the greater part of the remainder having been scarcely more than glanced at; and even the most familiar portions, as England, having been so imperfectly

explored that a new series of strata has been added within these four years,—it is impossible for us to say with certainty what creatures have, and what have not, existed at any particular period. Considering the perishable nature of many of the lower organic forms, the metamorphosis of numerous sedimentary strata, and the great gaps occurring among the rest, we shall see further reason for distrusting our deductions. On the one hand, the repeated discovery of vertebrate remains in strata previously supposed to contain none, of reptiles where only fish were thought to exist,—of mammals where it was believed there were no creatures higher than reptiles,—renders it daily more manifest how small is the value of negative evidence. On the other hand, the worthlessness of the assumption that we have discovered the earliest, or anything like the earliest, organic remains, is becoming equally clear. That the oldest known sedimentary rocks have been greatly changed by igneous action, and that still older ones have been totally transformed by it, is becoming undeniable. And the fact that sedimentary strata earlier than any we know, have been melted up, being admitted, it must also be admitted that we cannot say how far back in time this destruction of sedimentary strata has been going on. Thus the title *Paleozoic*, as applied to the earliest known fossiliferous strata, involves a *petitio principii*; and, for aught we know to the contrary, only the last few chapters of the Earth's biological history may have come down to us. On neither side, therefore, is the evidence conclusive. Nevertheless we cannot but think that, scanty as they are, the facts, taken altogether, tend to show both that the more heterogeneous organisms have been evolved in the later geologic periods, and that Life in general has been more heterogeneously manifested as time has advanced. Let us cite, in illustration, the one case of the *Vertebrata*. The earliest known vertebrate remains are those of Fishes; and Fishes are the most homogeneous of the

vertebrata. Later and more heterogeneous are Reptiles. Later still, and more heterogeneous still, are Birds and Mammals. If it be said that the Paleozoic deposits, not being estuary deposits, are not likely to contain the remains of terrestrial vertebrata, which may nevertheless have existed at that era, we reply that we are merely pointing to the leading facts, *such as they are*. But to avoid any such criticism, let us take the mammalian sub-division only. The earliest known remains of mammals are those of small marsupials, which are the lowest of the mammalian type; while, conversely, the highest of the mammalian type—Man—is the most recent. The evidence that the vertebrate fauna, as a whole, has become more heterogeneous, is considerably stronger. To the argument that the vertebrate fauna of the Paleozoic period, consisting, so far as we know, entirely of Fishes, was less heterogeneous than the modern vertebrate fauna, which includes Reptiles, Birds, and Mammals, of multitudinous genera, it may be replied, as before, that estuary deposits of the Paleozoic period, could we find them, might contain other orders of vertebrata. But no such reply can be made to the argument that whereas the marine vertebrata of the Paleozoic period consisted entirely of cartilaginous fishes, the marine vertebrata of later periods include numerous genera of osseous fishes; and that, therefore, the later marine vertebrate faunas are more heterogeneous than the oldest known one. Nor, again, can any such reply be made to the fact that there are far more numerous orders and genera of mammalian remains in the tertiary formations than in the secondary formations. Did we wish merely to make out the best case, we might dwell upon the opinion of Dr. Carpenter, who says that “the general facts of Paleontology appear to sanction the belief, that *the same plan* may be traced out in what may be called *the general life of the globe*, as in *the individual life* of every one of the forms of organized being

which now people it.” Or we might quote, as decisive, the judgment of Professor Owen, who holds that the earlier examples of each group of creatures severally departed less widely from archetypal generality than the later examples—were severally less unlike the fundamental form common to the group as a whole; and thus constituted a less heterogeneous group of creatures. But in deference to an authority for whom we have the highest respect, who considers that the evidence at present obtained does not justify a verdict either way, we are content to leave the question open.

Whether an advance from the homogeneous to the heterogeneous is or is not displayed in the biological history of the globe, it is clearly enough displayed in the progress of the latest and most heterogeneous creature—Man. It is none the less true, during the period in which the Earth has been peopled, the human organism has grown more heterogeneous among the civilized divisions of the species; and that the species, as a whole, has been growing more heterogeneous in virtue of the multiplication of races and the differentiation of these races from each other. In proof of the first of these positions, we may cite the fact that, in the relative development of the limbs, the civilized man departs more widely from the general type of the placental mammalia than do the lower human races. While often possessing well-developed body and arms, the Australian has very small legs; thus reminding us of the chimpanzee and the gorilla, which present so great contrasts in size between the hind and fore limbs.

Since this was written (in 1857) the advance of paleontological discovery, especially in America, has shown conclusively, in respect of certain groups of vertebrates, that higher types have arisen by modifications of lower; so that, in common with others, Prof. Huxley, to whom the above allusion is made, now admits, or rather asserts, biological progression, and, by implication, that there have arisen more heterogeneous organic forms and a more heterogeneous assemblage of organic forms.

But in the European, the greater length and massiveness of the legs have become marked—the fore and hind limbs are more heterogeneous. Again, the greater ratio which the cranial bones bear to the facial bones illustrates the same truth. Among the vertebrata in general, progress is marked by an increasing heterogeneity in the vertebral column, and more especially in the segments constituting the skull: the higher forms being distinguished by the relatively larger size of the bones which cover the brain, and the relatively smaller size of those which form the jaws, &c. Now this characteristic, which is stronger in Man than in any other creature, is stronger in the European than in the savage. Moreover, judging from the greater extent and variety of faculty he exhibits, we may infer that the civilized man has also a more complex or heterogeneous nervous system than the uncivilized man: and, indeed, the fact is in part visible in the increased ratio which his cerebrum bears to the subjacent ganglia, as well as in the wider departure from symmetry in its convolutions. If further elucidation be needed, we may find it in every nursery. The infant European has sundry marked points of resemblance to the lower human races; as in the flatness of the *alæ* of the nose, the depression of its bridge, the divergence and forward opening of the nostrils, the form of the lips, the absence of a frontal sinus, the width between the eyes, the smallness of the legs. Now, as the developmental process by which these traits are turned into those of the adult European, is a continuation of that change from the homogeneous to the heterogeneous displayed during the previous evolution of the embryo, which every anatomist will admit; it follows that the parallel developmental process by which the like traits of the barbarous races have been turned into those of the civilized races, has also been a continuation of the change from the homogeneous to the heterogeneous. The truth of the second position—that Mankind, as a

whole, have become more heterogeneous—is so obvious as scarcely to need illustration. Every work on Ethnology, by its divisions and subdivisions of races, bears testimony to it. Even were we to admit the hypothesis that Mankind originated from several separate stocks, it would still remain true, that as, from each of these stocks, there have sprung many now widely-different tribes, which are proved by philological evidence to have had a common origin, the race as a whole is far less homogeneous than it once was. Add to which, that we have, in the Anglo-American, an example of a new variety arising within these few generations; and that, if we may trust to the descriptions of observers, we are likely soon to have another such example in Australia.

On passing from Humanity under its individual form to Humanity as socially embodied, we find the general law still more variously exemplified. The change from the homogeneous to the heterogeneous is displayed in the progress of civilization as a whole, as well as in the progress of every nation; and is still going on with increasing rapidity. As we see in existing barbarous tribes, society in its first and lowest form is a homogeneous aggregation of individuals having like powers and like functions: the only marked difference of function being that which accompanies difference of sex. Every man is warrior, hunter, fisherman, tool-maker, builder; every woman performs the same drudgeries. Very early, however, in the course of social evolution, there arises an incipient differentiation between the governing and the governed. Some kind of chieftainship seems coeval with the first advance from the state of separate wandering families to that of a nomadic tribe. The authority of the strongest or the most cunning makes itself felt among a body of savages as in a herd of animals, or a posse of schoolboys. At first, however, it is indefinite, uncertain; is shared by others of scarcely inferior power; and is unaccompanied by any

difference in occupation or style of living: the first ruler kills his own game, makes his own weapons, builds his own hut, and, economically considered, does not differ from others of his tribe. Gradually, as the tribe progresses, the contrast between the governing and the governed grows more decided. Supreme power becomes hereditary in one family; the head of that family, ceasing to provide for his own wants, is served by others; and he begins to assume the sole office of ruling. At the same time there has been arising a co-ordinate species of government—that of Religion. As all ancient records and traditions prove, the earliest rulers are regarded as divine personages. The maxims and commands they uttered during their lives are held sacred after their deaths, and are enforced by their divinely-descended successors; who in their turns are promoted to the pantheon of the race, here to be worshipped and propitiated along with their predecessors: the most ancient of whom is the supreme god, and the rest subordinate gods. For a long time these connate forms of government—civil and religious—remain closely associated. For many generations the king continues to be the chief priest, and the priesthood to be members of the royal race. For many ages religious law continues to include more or less of civil regulation, and civil law to possess more or less of religious sanction; and even among the most advanced nations these two controlling agencies are by no means completely separated from each other. Having a common root with these, and gradually diverging from them, we find yet another controlling agency—that of Ceremonial usages. All titles of honour are originally the names of the god-king; afterwards of the god and the king; still later of persons of high rank; and finally come, some of them, to be used between man and man. All forms of complimentary address were at first the expressions of submission from

prisoners to their conqueror, or from subjects to their ruler, either human or divine—expressions which were afterwards used to propitiate subordinate authorities, and slowly descended into ordinary intercourse. All modes of salutation were once obeisances made before the monarch and used in worship of him after his death. Presently others of the god-descended race were similarly saluted; and by degrees some of the salutations have become the due of all.¹ Thus, no sooner does the originally-homogeneous social mass differentiate into the governed and the governing parts, than this last exhibits an incipient differentiation into religious and secular—Church and State; while at the same time there begins to be differentiated from both, that less definite species of government which rules our daily intercourse—a species of government which, as we may see in heralds' colleges, in books of the peerage, in masters of ceremonies, is not without a certain embodiment of its own. Each of these is itself subject to successive differentiations. In the course of ages, there arises, as among ourselves, a highly complex political organization of monarch, ministers, lords and commons, with their subordinate administrative departments, courts of justice, revenue offices, &c., supplemented in the provinces by municipal governments, county governments, parish or union governments—all of them more or less elaborated. By its side there grows up a highly complex religious organization, with its various grades of officials, from archbishops down to sextons, its colleges, convocations, ecclesiastical courts, &c.; to all which must be added the ever-multiplying independent sects, each with its general and local authorities. And at the same time there is developed a highly complex aggregation of customs, manners, and temporary fashions, enforced by society at large, and serving to

¹ For detailed proof of these assertions see essay on "Manners and Fashion."

control those minor transactions between man and man which are not regulated by civil and religious law. Moreover, it is to be observed that this increasing heterogeneity in the governmental appliances of each nation, has been accompanied by an increasing heterogeneity in the assemblage of governmental appliances of different nations: all nations being more or less unlike in their political systems and legislation, in their creeds and religious institutions, in their customs and ceremonial usages.

Simultaneously there has been going on a second differentiation of a more familiar kind: that namely, by which the mass of the community has been segregated into distinct classes and orders of workers. While the governing part has undergone the complex development above detailed, the governed part has undergone an equally complex development which has resulted in that minute division of labour characterizing advanced nations. It is needless to trace out this progress from its first stages, up through the caste divisions of the East and the incorporated guilds of Europe, to the elaborate producing and distributing organization existing among ourselves. It has been an evolution which, beginning with a tribe whose members severally perform the same actions each for himself, ends with a civilized community whose members severally perform different actions for each other, and an evolution which has transformed the solitary producer of any one commodity into a combination of producers who, united under a master, take separate parts in the manufacture of such commodity. But there are yet other and higher phases of this advance from the homogeneous to the heterogeneous in the industrial organization of society. Long after considerable progress has been made in the division of labour among different classes of workers, there is still little or no division of labour among the widely separated parts of the community: the nation continues comparatively homogeneous in the respect

that in each district the same occupations are pursued. But when roads and other means of transit become numerous and good, the different districts begin to assume different functions, and to become mutually dependent. The calico manufacture locates itself in this county, the woollen cloth manufacture in that, silks are produced here, lace there, stockings in one place, shoes in another, pottery, hardware, cutlery come to have their special towns, and ultimately every locality becomes more or less distinguished from the rest by the leading occupation carried on in it. This subdivision of functions shows itself not only among the different parts of the same nation, but among different nations. That exchange of commodities which free trade is increasing so largely, will ultimately have the effect of specializing, in a greater or less degree, the industry of each people. So that beginning with a barbarous tribe almost if not quite homogeneous in the functions of its members, the progress has been, and still is toward an economic aggregation of the whole human race growing ever more heterogeneous in respect of the separate functions assumed by separate nations, the separate functions assumed by the local sections of each nation, the separate functions assumed by the many kinds of makers and traders in each town, and the separate functions assumed by the workers united in producing each commodity.

The law thus clearly exemplified in the evolution of the social organism, is exemplified with equal clearness in the evolution of all products of human thought and action, whether concrete or abstract, real or ideal. Let us take language as our first illustration.

The lowest form of language is the exclamation, by which an entire idea is vaguely conveyed through a single sound, as among the lower animals. That human language ever consisted solely of exclamations, and so was strictly homogeneous in respect of its parts of speech, we have no evidence.

But that language can be traced down to a form in which nouns and verbs are its only elements, is an established fact. In the gradual multiplication of parts of speech out of these primary ones—in the differentiation of verbs into active and passive, of nouns into abstract and concrete—in the rise of distinctions of mood, tense, person, of number and case—in the formation of auxiliary verbs of adjectives, adverbs, pronouns, prepositions, articles—in the divergence of those orders, genera, species and varieties of parts of speech by which civilized races express minute modifications of meaning—we see a change from the homogeneous to the heterogeneous. Another aspect under which we may trace the development of language is the divergence of words having common origins. Philology fully disclosed the truth that in all languages words may be grouped into families the members of each of which are allied by their derivation. Names springing from a primitive root, themselves become the parent of other names still further modified. And by the aid of those systematic methods which presently arise of making derivatives and forming compound tenses there is finally developed a tribe of words so heterogeneous in sound and meaning that to the uninitiated it seems incredible they should be nearly related. Meanwhile from other roots there are being evolved other such tribes until there results a language of some sixty thousand or more unlike words signifying as many unlike objects qualities acts. Yet another way in which language in general advances from the homogeneous to the heterogeneous, is in the multiplication of languages. Whether all languages have grown from one stock, or whether, as some philologists think, they have grown from two or more stocks, it is clear that since large groups of languages, as the Indo-European, are of one parentage, they have become distinct through a process of continuous divergence. The same diffusion over the Earth's surface which has

led to differentiations of race, has simultaneously led to differentiations of speech, a truth which we see further illustrated in each nation by the distinct dialects found in separate districts. Thus the progress of language conforms to the general law, alike in the evolution of languages in the evolution of families of words and in the evolution of parts of speech.

On passing from spoken to written language we come upon several classes of facts having mutual implications. Written language is connected with Painting and Sculpture and at first all three are appendages of Architecture, and have a direct connection with the primary form of all Government the theocratic. Marking this by the way the fact that sundry wild races is for example the Australians and the tribes of South Africa never to depicting pictures on the walls of houses which are probably regarded as sacred places. Let us pass to the case of the Egyptians. Among them is also an art the Assyrians we find mural paintings used for the decoration of the temple of the god and the picture of the king (which were in all probability identical), and such they were governmental appliances in the same sense as state-pictures and religious festivals were. They were governmental appliances in another way representing as they did the worship of the god the triumphs of the god king the submission of his subjects, and the punishment of the rebellious. Further they were governmental, as being the products of an art revered by the people as a sacred mystery. From the habitual use of this pictorial representation there grew up the but slightly modified practice of picture-writing a practice which was found still extant among North American peoples at the time they were discovered. By abbreviations analogous to those still going on in our own written language, the most frequently recurring of these pictured figures were successively simplified, and ultimately there grew up a

system of symbols, most of which had but distant resemblances to the things for which they stood. The inference that the hieroglyphics of the Egyptians were thus produced, is confirmed by the fact that the picture-writing of the Mexicans was found to have given birth to a like family of ideographic forms; and among them, as among the Egyptians, these had been partially differentiated into the *kuriological* or imitative, and the *tropical* or symbolic; which were, however, used together in the same record. In Egypt, written language underwent a further differentiation, whence resulted the *hieratic* and the *epistolographic* or *enchorial*; both of which are derived from the original hieroglyphic. At the same time we find that for the expression of proper names, which could not be otherwise conveyed, signs having phonetic values were employed; and though it is alleged that the Egyptians never achieved complete alphabetic writing, yet it can scarcely be doubted that these phonetic symbols, occasionally used in aid of their ideographic ones, were the germs of an alphabetic system. Once having become separate from hieroglyphics, alphabetic writing itself underwent numerous differentiations—multiplied alphabets were produced; between most of which, however, more or less connection can still be traced. And in each civilized nation there has now grown up, for the representation of one set of sounds, several sets of written signs used for distinct purposes. Finally, from writing diverged printing; which, uniform in kind as it was at first, has since become multiform.

While written language was passing through its first stages of development, the mural decoration which contained its root was being differentiated into Painting and Sculpture. The gods, kings, men, and animals represented, were originally marked by indented outlines and coloured. In most cases these outlines were of such depth, and the object they circumscribed so far rounded and marked out in its leading parts, as

to form a species of work intermediate between intaglio and bas-relief. In other cases we see an advance upon this: the raised spaces between the figures being chiselled off, and the figures themselves appropriately tinted, a painted bas-relief was produced. The restored Assyrian architecture at Sydenham exhibits this style of art carried to greater perfection

the persons and things represented, though still barbarously coloured, are carved out with more truth and in greater detail; and in the winged lions and bulls used for the angles of gateways, we may see a considerable advance towards a completely sculptured figure; which, nevertheless, is still coloured, and still forms part of the building. But while in Assyria the production of a statue proper seems to have been little, if at all, attempted, we may trace in Egyptian art the gradual separation of the sculptured figure from the wall. A walk through the collection in the British Museum shows this; while at the same time it affords an opportunity of observing the traces which the independent statues bear of their derivation from bas-relief: seeing that nearly all of them not only display that fusion of the legs with one another and of the arms with the body which is characteristic of bas-relief, but have the back united from head to foot with a block which stands in place of the original wall. Greece repeated the leading stages of this progress. On the friezes of Greek Temples, were coloured bas-reliefs representing sacrifices, battles, processions, games—all in some sort religious. The pediments contained painted sculptures more or less united with the tympanum, and having for subjects the triumphs of gods or heroes. Even statues definitely separated from buildings were coloured; and only in the later periods of Greek civilization does the differentiation of Sculpture from Painting appear to have become complete. In Christian art we may trace a parallel re-genesis. All early works of art throughout Europe were religious in subject—represented

Christs, crucifixions, virgins, holy families, apostles, saints. They formed integral parts of church architecture, and were among the means of exciting worship; as in Roman Catholic countries they still are. Moreover, the sculptured figures of Christ on the cross, of virgins, of saints, were coloured; and it needs but to call to mind the painted madonnas still abundant in continental churches and highways, to perceive the significant fact that Painting and Sculpture continue in closest connection with each other where they continue in closest connection with their parent. Even when Christian sculpture became differentiated from painting, it was still religious and governmental in its subjects - was used for tombs in churches and statues of kings; while, at the same time, painting, where not purely ecclesiastical, was applied to the decoration of palaces, and besides representing royal personages, was mostly devoted to sacred legends. Only in recent times have painting and sculpture become quite separate and mainly secular. Only within these few centuries has Painting been divided into historical, landscape, marine, architectural, genre, animal, still-life, &c.; and Sculpture grown heterogeneous in respect of the variety of real and ideal subjects with which it occupies itself.

Strange as it seems then, we find that all forms of written language, of Painting, and of Sculpture, have a common root in the politico-religious decorations of ancient temples and palaces. Little resemblance as they now have, the landscape that hangs against the wall, and the copy of the *Times* lying on the table, are remotely akin. The brazen face of the knocker which the postman has just lifted, is related not only to the woodcuts of the *Illustrated London News* which he is delivering, but to the characters of the *billet-doux* which accompanies it. Between the painted window, the prayer-book on which its light falls, and the adjacent monument there is consanguinity. The effigies on our

coins, the signs over shops, the coat of arms outside the carriage panel, and the placards inside the omnibus, are, in common with dolls and paper-hangings, lineally descended from the rude sculpture-paintings in which ancient peoples represented the triumphs and worship of their god-kings. Perhaps no example can be given which more vividly illustrates the multiplicity and heterogeneity of the products that in course of time may arise by successive differentiations from a common stock.

Before passing to other classes of facts, it should be observed that the evolution of the homogeneous into the heterogeneous is displayed not only in the separation of Painting and Sculpture from Architecture and from each other, and in the greater variety of subjects they embody, but it is further shown in the structure of each work. A modern picture or statue is of far more heterogeneous nature than an ancient one. An Egyptian sculpture-fresco usually represents all its figures as at the same distance from the eye; and so is less heterogeneous than a painting that represents them as at various distances from the eye. It exhibits all objects as exposed to the same degree of light; and so is less heterogeneous than a painting which exhibits its different objects and different parts of each object as in different degrees of light. It uses chiefly the primary colours, and these in their full intensities; and so is less heterogeneous than a painting which, introducing the primary colours but sparingly, employs numerous intermediate tints, each of heterogeneous composition, and differing from the rest not only in quality but in strength. Moreover, we see in these early works great uniformity of conception. The same arrangement of figures is perpetually reproduced - the same actions, attitudes, faces, dresses. In Egypt the modes of representation were so fixed that it was sacrilege to introduce a novelty. The Assyrian bas-reliefs display parallel characters. Deities, kings, attendants,

Winged-figures and animals, are time after time depicted in like positions, holding like implements, doing like things, and with like expression or non-expression of face. If a palm grove is introduced, all the trees are of the same height, have the same number of leaves, and are equidistant. When water is imitated, each wave is a counterpart of the rest, and the fish, almost always of one kind, are evenly distributed over the surface. The heads of the kings, the gods, and the winged figures are everywhere similar as are the manes of the lions, and equally so those of the horses. Hair is represented throughout by one form of curl. The king's head is quite architecturally built up of compound tiers of uniform curls, alternating with twisted tiers placed in a transverse direction, and arranged with perfect regularity, and the terminal tufts of the bulls' tails are represented in exactly the same manner. Without tracing out analogous facts in early Christianity, in which, though less striking, they are still visible, the advance in heterogeneity will be sufficiently manifest on remembering that in the pictures of our own day the composition is endlessly varied, the attitudes, faces, expressions unlike, the subordinate objects different in sizes, forms, textures, and more or less of contrast even in the smallest details. Or, if we compare an Egyptian statue seated bolt upright on a block, with hands on knees, fingers parallel, eyes looking straight forward and the two sides perfectly symmetrical in every particular, with a statue of the advanced Greek school or the modern school, which is asymmetrical in respect of the attitude of the head, the body, the limbs, the arrangement of the hair, dress, appendages, and in its relations to neighbouring objects, we shall see the change from the homogeneous to the heterogeneous clearly manifested.

In the co-ordinate origin and gradual differentiation of Poetry, Music, and Dancing, we have another series of illustrations. Rhythm in words, rhythm

in sounds, and rhythm in motions, were in the beginning parts of the same thing, and have only in process of time become separate things. Among existing barbarous tribes we find them still united. The dances of savages are accompanied by some kind of monotonous chant, the clapping of hands, the striking of rude instruments: there are measured movements, measured words, and measured tones. The early records of historic races similarly show these three forms of metrical action united in religious festivals. In the Hebrew writings we read that the triumphal ode composed by Moses on the defeat of the Egyptians was sung, to an accompaniment of dancing and timbrels. The Israelites danced and sung at the inauguration of the golden calf. And it is generally agreed that this representation of the Deity was borrowed from the mysteries of Astarte. It is probable that the dancing was copied from that of the Egyptians on those occasions. Again in Greece the like relation is everywhere seen: the original type being, there, is probably in other cases, a simultaneous chanting and mimetic representation of the life and adventures of the hero or the god. The Spartan dances were accompanied by hymn and songs, and in general the Greek had no festivals or religious assemblies but what were accompanied with songs and dances: both of them being forms of worship used before altars. Among the Romans, too, there were sacred dances: the Salian and Furrerian being named as of that kind. And even in Christian countries, as at Limoges, in comparatively recent times, the people have danced in the chœur in honour of a saint. The incipient separation of these once united art from each other and from religion, was early visible in Greece. Probably diverging from dances partly religious, partly warlike, as the Corybantian, came the war dances proper, of which there were various kinds. Meanwhile Music and Poetry, though still united, came to

have an existence separate from Dancing. The primitive Greek poems, religious in subject, were not recited but chanted and though at first the chant of the poet was accompanied by the dance of the chorus, it ultimately grew into independence. Later still, when the poem had been differentiated into epic and lyric—when it became the custom to sing the lyric and recite the epic—poetry proper was born. As during the same period musical instruments were being multiplied, we may presume that music came to have an existence apart from words. And both of them were beginning to assume other forms besides the religious. Facts having like implications might be cited from the histories of many times and peoples: as the practices of our own early minstrels who sang to the harp heroic narratives versified by themselves to music of their own composition thus uniting the now separate offices of poet, composer, vocalist and instrumentalist. But with no further illustration the common origin and gradual differentiation of Dancing, Poetry and Music will be sufficiently manifest.

The advance from the homogeneous to the heterogeneous is displayed not only in the separation of these arts from each other and from religion but also in the multiplied differentiations which each of them afterwards undergoes. Not to dwell upon the numberless kinds of dancing that have in course of time come into use—and not to occupy space in detailing the progress of poetry—as seen in the development of the various forms of metre, of rhyme, and of general organization. Let us confine our attention to music as a type of the group. As implied by the customs of still extant barbarous races, the first musical instruments were, without doubt, percussive: sticks, calabashes, tom-toms—and were used simply to mark the time of the dance, and in this constant repetition of the same sound, we see music in its most homogeneous form. The Egyptians had a lyre with three strings. The early lyre of the Greeks had four, con-

stituting their tetrachord. In course of some centuries lyres of seven and eight strings were employed and, by the expiration of a thousand years, they had advanced to their "great system" of the double octave. Through all which changes there of course arose a greater heterogeneity of melody. Simultaneously there came into use the different modes.

Dorian, Ionian, Phrygian, Eolian, and Lydian—in referring to our keys, and of these there were ultimately fifteen. As yet however there was but little heterogeneity in the music of their music. Instrumental music being at first merely the accompaniment of vocal music, and vocal music being subordinated to words,

the singer being also the poet, chanting his own compositions and making the lengths of his notes agree with the feet of his verses—there resulted a tiresome uniformity of measure which, as Dr. Burney says, "no resources of melody could disguise." Lacking the complex rhythm obtained by our equal bar and unequal notes the only rhythm was that produced by the quantity of the syllables and was of necessity comparatively monotonous. And further, it may be observed that the chant thus resulting being like recitative was much less fully differentiated from ordinary speech than is our modern song. Nevertheless in virtue of the extended range of notes in use the variety of modes, the occasional variations of time consequent on changes of metre, and the multiplication of instruments music had, towards the close of Greek civilization, attained to considerable heterogeneity—not indeed as compared with our music, but as compared with that which preceded it. Still there existed nothing but melody—harmony was unknown. It was not until Christian church music had reached some development, that music in parts was evolved and then it came into existence through a very unobtrusive differentiation. Difficult as it may be to conceive *a priori* how the advance from melody to harmony could take place without a sudden leap, it is

none the less true that it did so. The circumstance which prepared the way for it was the employment of two choirs singing alternately the same air. Afterwards it became the practice—very possibly first suggested by a mistake—for the second choir to commence before the first had ceased; thus producing a fugue. With the simple airs then in use, a partially harmonious fugue might not improbably thus result; and a very partially harmonious fugue satisfied the ears of that age, as we know from still preserved examples. The idea having once been given, the composing of airs productive of fugal harmony would naturally grow up, as in some way it *did* grow up, out of this alternate choir-singing. And from the fugue to concerted music of two, three, four, and more parts, the transition was easy. Without pointing out in detail the increasing complexity that resulted from introducing notes of various lengths, from the multiplication of keys, from the use of accidentals, from varieties of time, and so forth, it needs but to contrast music as it is, with music as it was, to see how immense is the increase of heterogeneity. We see this if, looking at music in its *ensemble*, we enumerate its many different genera and species: if we consider the divisions into vocal, instrumental, and mixed; and their subdivisions into music for different voices and different instruments: if we observe the many forms of sacred music, from the simple hymn, the chant, the canon, motet, anthem, &c., up to the oratorio; and the still more numerous forms of secular music, from the ballad up to the serenata, from the instrumental solo up to the symphony. Again, the same truth is seen on comparing any one sample of aboriginal music with a sample of modern music—even an ordinary song for the piano; which we find to be relatively very heterogeneous, not only in respect of the variety in the pitches and in the lengths of the notes, the number of different notes sounding at the same instant in company with the voice, and

the variations of strength with which they are sounded and sung, but in respect of the changes of key, the changes of time, the changes of *timbre* of the voice, and the many other modifications of expression. While between the old monotonous dance-chant and a grand opera of our own day, with its endless orchestral complexities and vocal combinations, the contrast in heterogeneity is so extreme that it seems scarcely credible that the one should have been the ancestor of the other.

Were they needed, many further illustrations might be cited. Going back to the early time when the deeds of the god-king were recorded in picture-writings on the walls of temples and palaces, and so constituted a rude literature, we might trace the development of Literature through phases in which, as in the Hebrew Scriptures, it presents in one work theology, cosmogony, history, biography, law, ethics, poetry; down to its present heterogeneous development, in which its separated divisions and subdivisions are so numerous and varied as to defy complete classification. Or we might trace out the evolution of Science; beginning with the era in which it was not yet differentiated from Art, and was, in union with Art, the handmaid of Religion; passing through the era in which the sciences were so few and rudimentary, as to be simultaneously cultivated by the same men; and ending with the era in which the genera and species are so numerous that few can enumerate them, and no one can adequately grasp even one genus. Or we might do the like with Architecture, with the Drama, with Dress. But doubtless the reader is already weary of illustrations; and our promise has been amply fulfilled. Abundant proof has been given that the law of organic development formulated by von Baer, is the law of all development. The advance from the simple to the complex, through a process of successive differentiations, is seen alike in the earliest changes of the Universe to

which we can reason our way back, and in the earliest changes which we can inductively establish; it is seen in the geologic and climatic evolution of the Earth; it is seen in the unfolding of every single organism on its surface, and in the multiplication of kinds of organisms; it is seen in the evolution of Humanity, whether contemplated in the civilized individual, or in the aggregate of races; it is seen in the evolution of Society in respect alike of its political, its religious, and its economical organization; and it is seen in the evolution of all those endless concrete and abstract products of human activity which constitute the environment of our daily life. From the remotest past which Science can fathom, up to the novelties of yesterday, that in which progress essentially consists, is the transformation of the homogeneous into the heterogeneous.

And now, must not this uniformity of procedure be a consequence of some fundamental necessity? May we not rationally seek for some all-pervading principle which determines this all-pervading process of things? Does not the universality of the *law* imply a universal *cause*?

That we can comprehend such cause, noumenally considered, is not to be supposed. To do this would be to solve that ultimate mystery which must ever transcend human intelligence. But it still may be possible for us to reduce the law of all progress, above set forth, from the condition of an empirical generalization, to the condition of a rational generalization. Just as it was possible to interpret Kepler's laws as necessary consequences of the law of gravitation; so it may be possible to interpret this law of progress, in its multiform manifestations, as the necessary consequence of some similarly universal principle. As gravitation was assignable as the *cause* of each of the groups of phenomena which Kepler generalized; so may some equally simple

attribute of things be assignable as the cause of each of the groups of phenomena generalized in the foregoing pages. We may be able to affiliate all these varied evolutions of the homogeneous into the heterogeneous, upon certain facts of immediate experience, which, in virtue of endless repetition, we regard as necessary.

The probability of a common cause, and the possibility of formulating it, being granted, it will be well, first, to ask what must be the general characteristics of such cause, and in what direction we ought to look for it. We can with certainty predict that it has a high degree of abstractness; seeing that it is common to such infinitely-varied phenomena. We need not expect to see in it an obvious solution of this or that form of progress; because it is equally concerned with forms of progress bearing little apparent resemblance to them: its association with multiform orders of facts, involves its dissociation from any particular order of facts. Being that which determines progress of every kind astronomic, geologic, organic, ethnologic, social, economic, artistic, &c. it must be involved with some fundamental trait displayed in common by these; and must be expressible in terms of this fundamental trait. The only obvious respect in which all kinds of progress are alike, is, that they are modes of *change*; and hence, in some characteristic of changes in general, the desired solution will probably be found. We may suspect *a priori* that in some universal law of change lies the explanation of this universal transformation of the homogeneous into the heterogeneous.

Thus much premised, we pass at once to the statement of the law, which is this:—*Every active force produces more than one change - every cause produces more than one effect.*

To make this proposition comprehensible, a few examples must be given. When one body strikes another, that which we usually regard as the effect, is

a change of position or motion in one or both bodies. But a moment's thought shows us that this is a very incomplete view of the matter. Besides the visible mechanical result sound is produced, or, to speak accurately, a vibration in one or both bodies, which is communicated to the surrounding air and under some circumstances we call this the effect. Moreover the air has not only been made to undulate, but has had currents caused in it by the transit of the bodies. Further there is a disturbance of the particles of the two bodies in the neighbourhood of their point of collision amounting, in some cases to a visible condensation. Yet more this condensation is accompanied by the disengagement of heat. In some cases a spark that is, light results from the incandescence of a portion struck off and sometimes the incandescence is associated with chemical combination. Thus, by the mechanical force expended in the collision at least five and often more, different kinds of changes have been produced. Take again the lighting of a candle. Primarily this is a chemical change consequent on a rise of temperature. The process of combustion having once been started by extraneous heat there is a continued formation of carbonic acid water &c. in itself a result more complex than the extraneous heat that first caused it. But accompanying this process of combination there is a production of heat there is a production of light there is an ascending column of hot gases generated, there are inflowing currents set going in the surrounding air. Moreover, the complicating of effects does not end here each of the several changes produced becomes the parent of further changes. The carbonic acid given off will by and by combine with some base or under the influence of sunshine give up its carbon to the leaf of a plant. The water will modify the hygrometric state of the air around or, if the current of hot gases containing it comes against a cold body, will be con-

densed altering the temperature of the surface it covers. The heat given out melts the subjacent tallow, and expands whatever it warms. The light, falling on various substances, calls forth from them reactions by which its composition is modified and so divers colours are produced. Similarly even with these secondary actions, which may be traced out into ever multiplying ramifications, until they become too minute to be appreciated. And thus it is with all changes whatever. No case can be named in which an active force does not evolve forces of several kinds and each of these other groups of forces. Universally the effect is more complex than the cause.

Doubtless the reader already foresees the course of our argument. This multiplication of effects which is displayed in every event of to-day has been going on from the beginning and is true of the rudest phenomenon of the universe as of the most magnificent. From the law that every active force produces more than one change it is an inevitable corollary that during the past there has been an ever-growing complication of things. Throughout creation there must have gone on and must still go on, a never-ceasing transformation of the homogeneous into the heterogeneous. Let us trace this truth in detail.

Without committing ourselves to it as more than a speculation, though a highly probable one let us again commence with the evolution of the Solar System out of nebulous medium. The hypothesis is that from the mutual attraction of the molecules of a diffused mass whose form is unsymmetrical, there results not only condensation but rotation. While the condensation and the rate of rotation go on increasing, the approach of the molecules is necessarily accompanied by an increasing temperature. As the temperature rises, light begins to be evolved and ultimately there results a revolving sphere of fluid matter radiating intense heat and light a sun. There are reasons for believing

that, in consequence of the higher tangential velocity originally possessed by the outer parts of the condensing nebulous mass, there will be occasional detachments of rotating rings, and that, from the breaking up of these nebulous rings, there will arise masses which in the course of their condensation repeat the actions of the parent mass, and so produce planets and their satellites—an inference strongly supported by the still extant rings of Saturn. Should it hereafter be satisfactorily shown that planets and satellites were thus generated, a striking illustration will be afforded of the highly heterogeneous effects produced by the primary homogeneous cause, but it will serve our present purpose to point to the fact that from the mutual attraction of the particles of an irregular nebulous mass there result condensation, rotation, heat, and light.

It follows as a corollary from the Nebular Hypothesis, that the Earth must once have been incandescent, and whether the Nebular Hypothesis be true or not, this original incandescence of the Earth is now inductively established—or, if not established at least rendered so highly probable that it is in accepted geological doctrine. Let us look first at the astronomical attributes of this once molten globe. From its rotation there result the oblateness of its form, the alternations of day and night, and (under the influence of the moon and in a smaller degree the sun) the tides, aqueous and atmospheric. From the inclination of its axis, there result the many differences of the seasons, both simultaneous and successive, that pervade its surface, and from the same cause joined with the action of the moon on the equatorial protuberance there results the precession of the equinoxes. Thus the multiplication of effects is obvious. Several of the differentiations due to the gradual cooling of the Earth have been already noticed—as the formation of a crust, the solidification of sublimed elements, the precipitation of water, &c.,—and we here

again refer to them merely to point out that they are simultaneous effects of the one cause, diminishing heat. Let us now, however, observe the multiplied changes afterwards arising from the continuance of this one cause. The cooling of the Earth involves its contraction. Hence the solid crust first formed is presently too large for the shrinking nucleus, and as it cannot support itself, inevitably follows the nucleus. But a spheroidal envelope cannot sink down into contact with a smaller internal spheroid without disruption; it must run into wrinkles as the rind of an apple does when the bulk of its interior decreases from evaporation. As the cooling progresses and the envelope thickens the ridges consequent on these contractions will become greater, rising ultimately into hills and mountains, and the later system of mountain thus produced will not only be higher as we find them to be, but will be longer, as we also find them to be. Thus leaving out of view other modifying forces, we see what immense heterogeneity of surface has arisen from the one cause, loss of heat. A telescope which the telescope boys use to be pulled on the face of Mars, and which in the moon too where aqueous and atmospheric are none have been absent it reveals under a somewhat different form. But we have yet to notice another kind of heterogeneity of surface multiply and simultaneously created. While the Earth's crust was still thin the ridges produced by its contraction must not only have been small, but the spaces between these ridges must have rested with great evenness upon the subjacent liquid spheroid, and the water in those arctic and antarctic regions in which it first condensed must have been evenly distributed. But as fast as the crust thickened and gained corresponding strength, the lines of fracture from time to time caused in it, must have occurred at greater distances apart, the intermediate surfaces must have followed the contracting nucleus with less uniformity.

and there must have resulted larger areas of land and water. If any one, after wrapping up an orange in tissue paper, and observing not only how small are the wrinkles, but how evenly the intervening spaces lie upon the surface of the orange, will then wrap it up in thick cartridge-paper, and note both the greater height of the ridges and the larger spaces throughout which the paper does not touch the orange, he will realize the fact that, as the Earth's solid envelope grew thicker, the areas of elevation and depression increased. In place of islands homogeneously dispersed amid an all-embracing sea, there must have gradually arisen heterogeneous arrangements of continent and ocean. Once more, this double change in the extent and in the elevation of the lands, involved yet another species of heterogeneity—that of coast-line. A tolerably even surface raised out of the ocean must have a simple, regular sea-margin; but a surface varied by table-lands and intersected by mountain-chains must, when raised out of the ocean, have an outline extremely irregular both in its leading features and in its details. Thus, multitudinous geological and geographical results are slowly brought about by this one cause—the contraction of the Earth.

When we pass from the agency termed igneous, to aqueous and atmospheric agencies, we see the like ever-growing complications of effects. The denuding actions of air and water, joined with those of changing temperature, have, from the beginning, been modifying every exposed surface. Oxidation, heat, wind, frost, rain, glaciers, rivers, tides, waves, have been unceasingly producing disintegration; varying in kind and amount according to local circumstances. Acting upon a tract of granite, they here work scarcely an appreciable effect; there cause exfoliations of the surface, and a resulting heap of *débris* and boulders; and elsewhere, after decomposing the feldspar into a white clay, carry away this and the accompanying

quartz and mica, and deposit them in separate beds, fluvial and marine. When the exposed land consists of several unlike kinds of sedimentary strata, or igneous rocks, or both, denudation produces changes proportionably more heterogeneous. The formations being disintegrable in different degrees, there follows an increased irregularity of surface. The areas drained by different rivers being differently constituted, these rivers carry down to the sea different combinations of ingredients; and so sundry new strata of unlike compositions are formed. And here we may see very simply illustrated, the truth, which we shall presently have to trace out in more involved cases, that in proportion to the heterogeneity of the object or objects on which any force expends itself, is the heterogeneity of the effects. A continent of complex structure, exposing many strata irregularly distributed, raised to various levels, tilted up at all angles, will, under the same denuding agencies, give origin to innumerable and involved results: each district must be differently modified; each river must carry down a different kind of detritus; each deposit must be differently distributed by the entangled currents, tidal and other, which wash the contorted shores; and this multiplication of results must manifestly be greatest where the complexity of surface is greatest.

Here we might show how the general truth, that every active force produces more than one change, is again exemplified in the highly-involved flow of the tides, in the ocean currents, in the winds, in the distribution of rain, in the distribution of heat, and so forth. But not to dwell upon these, let us, for the fuller elucidation of this truth in relation to the inorganic world, consider what would be the consequences of some extensive cosmical catastrophe—say the subsidence of Central America. The immediate results of the disturbance would themselves be sufficiently complex. Besides the numberless dislocations of strata, the ejections of igneous

matter, the propagation of earthquake vibrations thousands of miles around, the loud explosions, and the escape of gases; there would be the rush of the Atlantic and Pacific Oceans to fill the vacant space, the subsequent recoil of enormous waves, which would traverse both these oceans and produce myriads of changes along their shores, the corresponding atmospheric waves complicated by the currents surrounding each volcanic vent, and the electrical discharges with which such disturbances are accompanied. But these temporary effects would be insignificant compared with the permanent ones. The currents of the Atlantic and Pacific would be altered in their directions and amounts. The distribution of heat achieved by these ocean currents would be different from what it is. The arrangement of the isothermal lines, not only on neighbouring continents, but even throughout Europe, would be changed. The tides would flow differently from what they do now. There would be more or less modification of the winds in their periods, strengths, directions, qualities. Rain would fall scarcely anywhere at the same times and in the same quantities as at present. In short, the meteorological conditions thousands of miles off, on all sides, would be more or less revolutionized. Thus, without taking into account the infinitude of modifications which these changes would produce upon the flora and fauna, both of land and sea, the reader will perceive the immense heterogeneity of the results wrought out by one force, when that force expends itself upon a previously complicated area; and he will draw the corollary that from the beginning the complication has advanced at an increasing rate.

Before going on to show how organic progress also depends on the law that every force produces more than one change, we have to notice the manifestation of this law in yet another species of inorganic progress—namely, chemical. The same general causes that have

wrought out the heterogeneity of the Earth, physically considered, have simultaneously wrought out its chemical heterogeneity. There is every reason to believe that at an extreme heat the elements cannot combine. Even under such heat as can be artificially produced, some very strong affinities yield, as, for instance, that of oxygen for hydrogen; and the great majority of chemical compounds are decomposed at much lower temperatures. But without insisting on the highly probable inference, that when the Earth was in its first state of incandescence there were no chemical combinations at all, it will suffice for our purpose to point to the unquestionable fact that the compounds which can exist at the highest temperatures, and which must, therefore, have been the first that were formed as the Earth cooled, are those of the simplest constitutions. The protoxides, including under that head the alkalies, earths, &c., are, as a class, the most stable compounds we know: most of them resisting decomposition by any heat we can generate. These are combinations of the simplest order—are but one degree less homogeneous than the elements themselves. More heterogeneous, less stable, and therefore later in the Earth's history, are the deutoxides, tritoxides, peroxides, &c.: in which two, three, four, or more atoms of oxygen are united with one atom of metal or other element. Higher than these in heterogeneity are the hydrates; in which an oxide of hydrogen, united with an oxide of some other element, forms a substance whose atoms severally contain at least four ultimate atoms of three different kinds. Yet more heterogeneous and less stable still are the salts; which present us with molecules each made up of five, six, seven, eight, ten, twelve, or more atoms, of three, if not more, kinds. Then there are the hydrated salts, of a yet greater heterogeneity, which undergo partial decomposition at much lower temperatures. After them come the further complicated supersalts and double salts, having a stability again decreased;

and so throughout. Without entering into qualifications for which space fails, we believe no chemist will deny it to be a general law of these inorganic combinations that, *other things equal*, the stability decreases as the complexity increases. When we pass to the compounds of organic chemistry, we find this general law still further exemplified: we find much greater complexity and much less stability. A molecule of albumen, for instance, consists of 482 ultimate atoms of five different kinds. Fibrine, still more intricate in constitution, contains in each molecule, 298 atoms of carbon, 49 of nitrogen, 2 of sulphur, 228 of hydrogen, and 92 of oxygen—in all, 669 atoms; or, more strictly speaking, equivalents. And these two substances are so unstable as to decompose at quite ordinary temperatures; as that to which the outside of a joint of roast meat is exposed. Thus it is manifest that the present chemical heterogeneity of the Earth's surface has arisen by degrees, as the decrease of heat has permitted; and that it has shown itself in three forms—first, in the multiplication of chemical compounds; second, in the greater number of different elements contained in the more modern of these compounds; and third, in the higher and more varied multiples in which these more numerous elements combine.

To say that this advance in chemical heterogeneity is due to the one cause, diminution of the Earth's temperature, would be to say too much: for it is clear that aqueous and atmospheric agencies have been concerned; and further, that the affinities of the elements themselves are implied. The cause has all along been a composite one: the cooling of the Earth having been simply the most general of the concurrent causes, or assemblage of conditions. And here, indeed, it may be remarked that in the several classes of facts already dealt with (excepting, perhaps, the first), and still more in those with which we shall presently deal, the causes are more or

less compound; as indeed are nearly all causes with which we are acquainted. Scarcely any change can rightly be ascribed to one agency alone, to the neglect of the permanent or temporary conditions under which only this agency produces the change. But as it does not materially affect our argument, we prefer, for simplicity's sake, to use throughout the popular mode of expression. Perhaps it will be further objected, that to assign loss of heat as the cause of any changes, is to attribute these changes not to a force, but to the absence of a force. And this is true. Strictly speaking, the changes should be attributed to those forces which come into action when the antagonist force is withdrawn. But though there is inaccuracy in saying that the freezing of water is due to the loss of its heat, no practical error arises from it; nor will a parallel laxity of expression vitiate our statements respecting the multiplication of effects. Indeed, the objection serves but to draw attention to the fact, that not only does the exertion of a force produce more than one change, but the withdrawal of a force produces more than one change.

Returning to the thread of our exposition, we have next to trace, throughout organic progress, this same all-pervading principle. And here, where the evolution of the homogeneous into the heterogeneous was first observed, the production of many effects by one cause is least easy to demonstrate. The development of a seed into a plant, or an ovum into an animal, is so gradual, while the forces which determine it are so involved, and at the same time so unobtrusive, that it is difficult to detect the multiplication of effects which is elsewhere so obvious. But, guided by indirect evidence, we may safely conclude that here too the law holds. Note, first, how numerous are the changes which any marked action works upon an adult organism—a human being, for instance. An alarming sound or sight, besides the impressions on the organs of sense and the nerves, may produce a start, a scream, a distortion of

the face, a trembling consequent on general muscular relaxation, a burst of perspiration, a rush of blood to the brain, followed possibly by arrest of the heart's action and by syncope, and if the subject be feeble, an indisposition with its long train of complicated symptoms may set in. Similarly in cases of disease. A minute portion of the small pox virus introduced into the system, will, in a severe case cause during the first stage rigors, heat of skin, accelerated pulse, hurried tonic loss of appetite, thirst, epigastric uneasiness, vomiting, headache, pains in the back and limbs, muscular weakness, convulsions, delirium, &c. in the second stage, cutaneous eruption, itching, tingling, sore throat, swollen fauces, salivation, cough, hoarseness, dyspnea, &c. and in the third stage, edematous inflammations, pneumonia, pleurisy, diarrhoea, inflammation of the brain, ophthalmia, erysipelas, &c. each of which enumerated symptoms is itself more or less complex. Medicines, special foods, better air, might in like manner be instituted as producing multiplied results. Now it need only to consider that the many changes thus wrought by one force upon an adult organism will be in part paralleled in an embryo organism to understand how here also the evolution of the homogeneous into the heterogeneous may be due to the production of many effects by one cause. The external heat, which filling on a matter having special proclivities, determines the first complications of the germ, may, by acting on these, superinduce further complications upon these still higher and more numerous ones, and so on continually each organ as it is developed serving, by its actions and reactions on the rest, to initiate new complexities. The first pulsations of the foetal heart must simultaneously aid the unfolding of every part. The growth of each tissue, by taking from the blood special proportions of elements, must modify the constitution of the blood, and so must

modify the nutrition of all the other tissues. The heart's action implying as it does a certain waste, necessitates an addition to the blood of effete matters, which must influence the rest of the system, and perhaps, as some think, cause the formation of excretory organs. The nervous connections established among the viscera must further multiply their mutual influences, and so continually. Still stronger becomes the probability of this view when we call to mind the fact that the same germ may be evolved into different forms according to circumstances. Thus during its earlier stage every embryo is sexless, becomes either male or female as the balance of forces acting on it determines. Again, it is a well established fact that the larva of a worm, which will develop into a queen bee if before it is to bite its food be changed so that in which the larva of a queen bee is reared. All which in time we get that the proximate cause of each advance in embryonic complication is the action of incident force upon the complication previously existing. Indeed we may find *a priori* reasons to think that the evolution proceeds after this manner. For since no germ animal or vegetable contains the slightest rudiment or indication of the future organism, since the microscope has shown us that the first process set up in every fertilized germ is a process of repeated spontaneous fissions ending in the production of a mass of cells, not one of which exhibits any special character, there seems no alternative but to suppose that the partial organization at any moment existing in a growing embryo is transformed by the agencies acting upon it into the succeeding phase of organization and thus into the next, until, through ever increasing complexity the ultimate form is reached. Not indeed that we can thus really explain the production of any plant or animal. We are still in the dark respecting those mysterious properties in virtue of which the germ, when subject to fit influences, undergoes the special

changes that begin the series of transformations. All we aim to show, is, that given a germ possessing those particular proclivities distinguishing the species to which it belongs, and the evolution of an organism from it, probably depends on that multiplication of effects which we have seen to be the cause of progress in general, so far as we have yet traced it.

When, leaving the development of single plants and animals, we pass to that of the Earth's flora and fauna, the course of our argument again becomes clear and simple. Though, as was admitted in the first part of this article, the fragmentary facts Paleontology has accumulated, do not clearly warrant us in saying that, in the lapse of geologic time, there have been evolved more heterogeneous organisms, and more heterogeneous assemblages of organisms, yet we shall now see that there *must* ever have been a tendency towards these results. We shall find that the production of many effects by one cause, which, as already shown, has been all along increasing the physical heterogeneity of the Earth, has further involved an increasing heterogeneity in its flora and fauna, individually and collectively. An illustration will make this clear. Suppose that by a series of upheavals, occurring, as they are now known to do, at long intervals, the East Indian Archipelago were to be, step by step, raised into a continent, and a chain of mountains formed along the axis of elevation. By the first of these upheavals, the plants and animals inhabiting Borneo, Sumatra, New Guinea, and the rest, would be subjected to slightly modified sets of conditions. The climate in general would be altered in temperature, in humidity, and in its periodical variations; while the local differences would be multiplied. These modifications would affect, perhaps inappreciably, the entire flora and fauna of the region. The change of level would produce additional modifications: varying in different species, and also in different members of the same species, according

to their distance from the axis of elevation. Plants, growing only on the sea-shore in special localities, might become extinct. Others, living only in swamps of a certain humidity, would, if they survived at all, probably undergo visible changes of appearance. While still greater alterations would occur in the plants gradually spreading over the lands newly raised above the sea. The animals and insects living on these modified plants, would themselves be in some degree modified by change of food, as well as by change of climate; and the modification would be more marked where, from the dwindling or disappearance of one kind of plant, an allied kind was eaten. In the lapse of the many generations arising before the next upheaval, the sensible or insensible alterations thus produced in each species would become organized—there would be a more or less complete adaptation to the new conditions. The next upheaval would superinduce further organic changes, implying wider divergences from the primary forms; and so repeatedly. But now let it be observed that the revolution thus resulting would not be a substitution of a thousand more or less modified species for the thousand original species; but in place of the thousand original species there would arise several thousand species, or varieties, or changed forms. Each species being distributed over an area of some extent, and tending continually to colonize the new area exposed, its different members would be subject to different sets of changes. Plants and animals spreading towards the equator would not be affected in the same way as others spreading from it. Those spreading towards the new shores would undergo changes unlike the changes undergone by those spreading into the mountains. Thus, each original race of organisms, would become the root from which diverged several races differing more or less from it and from each other; and while some of these might subsequently disappear, probably more

than one would survive in the next geologic period: the very dispersion itself increasing the chances of survival. Not only would there be certain modifications thus caused by change of physical conditions and food, but also in some cases other modifications caused by change of habit. The fauna of each island, peopling, step by step, the newly-raised tracts, would eventually come in contact with the faunas of other islands; and some members of these other faunas would be unlike any creatures before seen. Herbivores meeting with new beasts of prey, would, in some cases, be led into modes of defence or escape differing from those previously used; and simultaneously the beasts of prey would modify their modes of pursuit and attack. We know that when circumstances demand it, such changes of habit *do* take place in animals; and we know that if the new habits become the dominant ones, they must eventually in some degree alter the organization. Observe now, however, a further consequence. There must arise not simply a tendency towards the differentiation of each race of organisms into several races; but also a tendency to the occasional production of a somewhat higher organism. Taken in the mass these divergent varieties which have been caused by fresh physical conditions and habits of life, will exhibit changes quite indefinite in kind and degree; and changes that do not necessarily constitute an advance. Probably in most cases the modified type will be neither more nor less heterogeneous than the original one. In some cases the habits of life adopted being simpler than before, a less heterogeneous structure will result: there will be a retrogradation. But it *must* now and then occur, that some division of a species, falling into circumstances which give it rather more complex experiences, and demand actions somewhat more involved, will have certain of its organs further differentiated in proportionately small degrees,—will become slightly more heterogeneous.

Thus, in the natural course of things, there will from time to time arise an increased heterogeneity both of the Earth's flora and fauna, and of individual races included in them. Omitting detailed explanations, and allowing for the qualifications which cannot here be specified, we think it is clear that geological mutations have all along tended to complicate the forms of life, whether regarded separately or collectively. The same causes which have led to the evolution of the Earth's crust from the simple into the complex, have simultaneously led to a parallel evolution of the Life upon its surface. In this case, as in previous ones, we see that the transformation of the homogeneous into the heterogeneous is consequent upon the universal principle, that every active force produces more than one change.

The deduction here drawn from the established truths of geology and the general laws of life, gains immensely in weight on finding it to be in harmony with an induction drawn from direct experience. Just that divergence of many races from one race, which we inferred must have been continually occurring during geologic time, we know to have occurred during the pre-historic and historic periods, in man and domestic animals. And just that multiplication of effects which we concluded must have produced the first, we see has produced the last. Single causes, as famine, pressure of population, war, have periodically led to further dispersions of mankind and of dependent creatures: each such dispersion initiating new modifications, new varieties of type. Whether all the human races be or be not derived from one stock, philology makes it clear that whole groups of races now easily distinguishable from each other, were originally one race,—that the diffusion of one race into different climates and conditions of existence, has produced many modified forms of it. Similarly with domestic animals. Though in some cases—as

that of dogs—community of origin will perhaps be disputed, yet in other cases—as that of the sheep or the cattle of our own country—it will not be questioned that local differences of climate, food, and treatment, have transformed one original breed into numerous breeds now become so far distinct as to produce unstable hybrids. Moreover, through the complication of effects flowing from single causes, we here find, what we before inferred, not only an increase of general heterogeneity, but also of special heterogeneity. While of the divergent divisions and subdivisions of the human race many have undergone changes not constituting an advance; while in some the type may have degraded; in others it has become decidedly more heterogeneous. The civilized European departs more widely from the vertebrate archetype than does the savage. Thus, both the law and the cause of progress, which, from lack of evidence, can be but hypothetically substantiated in respect of the earlier forms of life on our globe, can be actually substantiated in respect of the latest forms.*

If the advance of Man towards greater

* The argument concerning organic evolution contained in this paragraph and the one preceding it, stands verbatim as it did when first published in the *Westminster Review* for April, 1857. I have thus left it without the alteration of a word that it may show the view I then held concerning the origin of species. The sole cause recognized is that of direct adaptation of constitution to conditions consequent on inheritance of the modifications of structure resulting from use and disuse. There is no recognition of that further cause disclosed in Mr. Darwin's work, published two and a half years later—the indirect adaptation resulting from the natural selection of favourable variations. The multiplication of effects is, however, equally illustrated in whatever way the adaptation to changing conditions is effected, or if it is effected in both ways, as I hold. I may add that there is indicated the view that the succession of organic forms is not serial but proceeds by perpetual divergence and re-divergence—that there has been a continual "divergence of many races from one race": each species being a "root" from which several other species branch out; and the growth of a tree being thus the implied symbol.

heterogeneity is traceable to the production of many effects by one cause, still more clearly may the advance of Society towards greater heterogeneity be so explained. Consider the growth of an industrial organization. When, as must occasionally happen, some member of a tribe displays unusual aptitude for making an article of general use—a weapon, for instance—which was before made by each man for himself, there arises a tendency towards the differentiation of that member into a maker of such weapon. His companions—warriors and hunters all of them,—severally feel the importance of having the best weapons that can be made; and are therefore certain to offer strong inducements to this skilled individual to make weapons for them. He, on the other hand, having not only an unusual faculty, but an unusual liking, for making such weapons (the talent and the desire for any occupation being commonly associated), is predisposed to fulfil each commission on the offer of an adequate reward: especially as his love of distinction is also gratified and his living facilitated. This first specialization of function, once commenced, tends ever to become more decided. On the side of the weapon-maker practice gives increased skill—increased superiority to his products. On the side of his clients, cessation of practice entails decreased skill. Thus the influences which determine this division of labour grow stronger in both ways; and the incipient heterogeneity is, on the average of cases, likely to become permanent for that generation if no longer. This process not only differentiates the social mass into two parts, the one monopolizing, or almost monopolizing, the performance of a certain function, and the other losing the habit, and in some measure the power, of performing that function; but it tends to initiate other differentiations. The advance described implies the introduction of barter,—the maker of weapons has, on each occasion, to be paid in such other articles as he agrees

to take in exchange. He will not habitually take in exchange one kind of article, but many kinds. He does not want mats only, or skins, or fishing-gear, but he wants all these, and on each occasion will bargain for the particular things he most needs. What follows? If among his fellows there exist any slight differences of skill in the manufacture of these various things, as there are almost sure to do, the weapon-maker will take from each one the thing which that one excels in making: he will exchange for mats with him whose mats are superior, and will bargain for the fishing-gear of him who has the best. But he who has bartered away his mats or his fishing-gear, must make other mats or fishing-gear for himself; and in so doing must, in some degree, further develop his aptitude. Thus it results that the small specialities of faculty possessed by various members of the tribe, will tend to grow more decided. And whether or not there ensue distinct differentiations of other individuals into makers of particular articles, it is clear that incipient differentiations take place throughout the tribe: the one original cause produces not only the first dual effect, but a number of secondary dual effects, like in kind, but minor in degree. This process, of which traces may be seen among schoolboys, cannot well produce lasting effects in an unsettled tribe; but where there grows up a fixed and multiplying community, such differentiations become permanent, and increase with each generation. The enhanced demand for every commodity, intensifies the functional activity of each specialized person or class; and this renders the specialization more definite where it already exists, and establishes it where it is but nascent. By increasing the pressure on the means of subsistence, a larger population again augments these results; seeing that each person is forced more and more to confine himself to that which he can do best, and by which he can gain most. Presently, under these same stimuli, new occupations

arise. Competent workers, ever aiming to produce improved articles, occasionally discover better processes or raw materials. The substitution of bronze for stone entails on him who first makes it a great increase of demand; so that he or his successor eventually finds all his time occupied in making the bronze for the articles he sells, and is obliged to depute the fashioning of these articles to others; and, eventually, the making of bronze, thus differentiated from a pre-existing occupation, becomes an occupation by itself. But now mark the ramified changes which follow this change. Bronze presently replaces stone, not only in the articles it was first used for, but in many others—in arms, tools, and utensils of various kinds; and so affects the manufacture of them. Further, it affects the processes which these utensils subserve, and the resulting products;—modifies buildings, carvings, personal decorations. Yet again, it sets going manufactures which were before impossible, from lack of a material fit for the requisite implements. And all these changes react on the people—-increase their manipulative skill, their intelligence, their comfort, refine their habits and tastes. Thus the evolution of a homogeneous society into a heterogeneous one, is clearly consequent on the general principle, that many effects are produced by one cause.

Space permitting, we might show how the localization of special industries in special parts of a kingdom, as well as the minute subdivision of labour in the making of each commodity, are similarly determined. Or, turning to a somewhat different order of illustrations, we might dwell on the multitudinous changes—material, intellectual, moral—caused by printing; or the further extensive series of changes wrought by gunpowder. But leaving the intermediate phases of social development, let us take a few illustrations from its most recent and its passing phases. To trace the effects of steam-power, in its manifold applications to mining, navigation, and manufactures of

all kinds, would carry us into unmanageable detail. Let us confine ourselves to the latest embodiment of steam power—the locomotive engine. This, as the proximate cause of our railway system, has changed the face of the country, the course of trade, and the habits of the people. Consider, first, the complicated sets of changes that precede the making of every railway—the provisional arrangements, the meetings, the registration, the trial section, the parliamentary survey, the lithographed plans, the books of reference, the local deposits and notices, the application to Parliament, the passing Standing Orders Committee, the first, second, and third readings; each of which brief heads indicates a multiplicity of transactions, and the extra development of sundry occupations as those of engineers, surveyors, lithographers, parliamentary agents, share-brokers; and the creation of sundry others—as those of traffic takers, reference-takers. Consider, next, the yet more marked changes implied in railway construction—the cuttings, embankings, tunnelings, diversions of roads; the building of bridges and stations, the laying down of ballast, sleepers, and rails; the making of engines, tenders, carriages, and waggons: which processes, acting on numerous trades, increase the importation of timber, the quarrying of stone, the manufacture of iron, the mining of coal, the burning of bricks: institute a variety of special manufactures weekly advertised in the *Railway Times*; and, finally, open the way to sundry new occupations, as those of drivers, stokers, cleaners, plate-layers, &c., &c. And then consider the changes, still more numerous and involved, which railways in action produce on the community at large. Business agencies are established where previously they would not have paid; goods are obtained from remote wholesale houses instead of near retail ones; and commodities are used which distance once rendered inaccessible. Again, the diminished cost of carriage tends to specialize more than

ever the industries of different districts—to confine each manufacture to the parts in which, from local advantages, it can be best carried on. Further, the fall in freights, facilitating distribution, equalizes prices, and also, on the average, lowers prices: thus bringing divers articles within the means of those before unable to buy them, and so increasing their comforts and improving their habits. At the same time the practice of travelling is immensely extended. People who never before dreamed of it, take trips to the sea; visit their distant relations; make tours; and so we are benefited in body, feelings, and ideas. The more prompt transmission of letters and of news produces other marked changes—makes the pulse of the nation faster. Once more, there arises a wide dissemination of cheap literature through railway book-stalls, and of advertisements in railway carriages: both of them aiding ulterior progress. And the countless changes here briefly indicated are consequent on the invention of the locomotive engine. The social organism has been rendered more heterogeneous in virtue of the many new occupations introduced, and the many old ones further specialized; prices of nearly all things in every place have been altered; each trader has modified his way of doing business; and every person has been affected in his actions, thoughts, emotions.

Illustrations to the same effect might be indefinitely accumulated, but they are needless. The only further fact demanding notice, is, that we here see still more clearly the truth before pointed out, that in proportion as the area on which any force expends itself becomes heterogeneous, the results are in a yet higher degree multiplied in number and kind. While among the simple tribes to whom it was first known, caoutchouc caused but few changes, among ourselves the changes have been so many and varied that the history of them occupies a volume.* Upon the small, homo-

* "Personal Narrative of the Origin of the

geneous community inhabiting one of the Hebrides, the electric telegraph would produce, were it used, scarcely any results; but in England the results it produces are multitudinous. The comparatively simple organization under which our ancestors lived five centuries ago, could have undergone but few modifications from an event like the recent one at Canton; but now, the legislative decision respecting it sets up many hundreds of complex modifications, each of which will be the parent of numerous future ones.

Space permitting, we could willingly have pursued the argument in relation to all the subtler results of civilization. As before we showed that the law of progress to which the organic and inorganic worlds conform, is also conformed to by Language, the plastic arts, Music, &c.; so might we here show that the cause which we have hitherto found to determine progress holds in these cases also. Instances might be given proving how, in Science, an advance of one division presently advances other divisions—how Astronomy has been immensely forwarded by discoveries in Optics, while other optical discoveries have initiated Microscopic Anatomy, and greatly aided the growth of Physiology—how Chemistry has indirectly increased our knowledge of Electricity, Magnetism, Biology, Geology—how Electricity has reacted on Chemistry and Magnetism, and has developed our views of Light and Heat. In Literature the same truth might be exhibited in the manifold effects of the primitive mystery-play, as originating the modern drama, which has variously branched; or in the still multiplying forms of periodical literature which have descended from the first newspaper, and which have severally acted and reacted on other forms of literature and on each other. The influence which a new school of Painting—as that of the pre-Raphaelites

—exercises upon other schools; the hints which all kinds of pictorial art are deriving from Photography; the complex results of new critical doctrines, as those of Mr. Ruskin, might severally be dwelt upon as displaying the like multiplication of effects.

But we venture to think our case is already made out. The imperfections of statement which brevity has necessitated, do not, we believe, invalidate the propositions laid down. The qualifications here and there demanded would not, if made, affect the inferences. Though, in tracing the genesis of progress, we have frequently spoken of complex causes as if they were simple ones; it still remains true that such causes are far less complex than their results. Detailed criticisms do not affect our main position. Endless facts go to show that every kind of progress is from the homogeneous to the heterogeneous; and that it is so because each change is followed by many changes. And it is significant that where the facts are most accessible and abundant, there these truths are most manifest.

However, to avoid committing ourselves to more than is yet proved, we must be content with saying that such are the law and the cause of all progress that is known to us. Should the Nebular Hypothesis ever be established, then it will become manifest that the Universe at large, like every organism, was once homogeneous; that as a whole, and in every detail, it has unceasingly advanced towards greater heterogeneity. It will be seen that as in each event of to-day, so from the beginning, the decomposition of every expanded force into several forces has been perpetually producing a higher complication; that the increase of heterogeneity so brought about is still going on and must continue to go on; and that thus progress is not an accident, not a thing within human control, but a beneficent necessity.

A few words must be added on the ontological bearings of our argument.

Probably not a few will conclude that there is an attempted solution of the great questions with which Philosophy in all ages has perplexed itself. Let none thus deceive themselves. After all that has been said, the ultimate mystery remains just as it was. The explanation of that which is explicable, does but bring out into greater clearness the inexplicableness of that which remains behind. Little as it seems to do so, fearless inquiry tends continually to give a firmer basis to all true Religion. The timid sectarian, obliged to abandon one by one the superstitions bequeathed to him, and daily finding his cherished beliefs more and more shaken, secretly fears that all things may some day be explained and has a corresponding dread of Science thus evincing the profoundest of all infidelity—the fear lest the truth be hid. On the other hand, the sincere man of science, content to follow wherever the evidence leads him, becomes by each new inquiry more profoundly convinced that the Universe is an insoluble problem. Alike in the external and the internal worlds, he sees himself in the midst of ceaseless changes, of which he can discover neither beginning nor end. If, tracing back the evolution of things, he allows himself to entertain the hypothesis that all matter once existed in a diffused form, he finds it impossible to conceive how this came to be so, and equally, if he speculates on the future, he can assign no limit to the grand succession of phenomena ever unfolding themselves before him. Similarly, if he looks inward, he perceives that both terminations of the thread of consciousness are beyond his grasp: he cannot remember when or how consciousness

commenced, and he cannot examine the consciousness at any moment existing; for only a state of consciousness which is already past can become the object of thought, and never one which is passing. When, again, he turns from the succession of phenomena, external or internal, to their essential nature, he is equally at fault. Though he may succeed in resolving all properties of objects into manifestations of force, he is not thereby enabled to conceive what force is, but finds, on the contrary, that the more he thinks about it, the more he is baffled. Similarly, though analysis of mental actions may finally bring him down to sensations as the original materials out of which all thought is woven, he is none the less wiser, for he cannot in the least comprehend sensation. Inward and outward things he thus discovers to be alike inscrutable in their ultimate genesis and nature. He sees that the Materialist and Spiritualist controversy is a mere war of words—the disputants being equally absurd—each believing he understands that which it is impossible for any man to understand. In all directions his investigations eventually bring him face to face with the unknowable and he ever more clearly perceives it to be the unknowable. He learns at once the greatness and the littleness of human intellect: its power in dealing with all that comes within the range of experience, its impotence in dealing with all that transcends experience. He feels more vividly than any others can feel, the utter incomprehensibility of the simplest fact, considered in itself. He alone truly sees that absolute knowledge is impossible. He alone knows that under all things there lies an impenetrable mystery.

THE DEVELOPMENT HYPOTHESIS

(1852)

IN a debate upon the Development Hypothesis, lately narrated to me by a friend, one of the disputants was described as arguing that as, in all our experience, we know no such phenomena as transmutation of species, it is unphilosophical to assume that transmutation of species ever takes place. Had I been present, I think that, passing over his assertion, which is open to criticism, I should have replied that, as in all our experience we have never known a species *created*, it was, by his own showing, unphilosophical to assume that any species ever had been created.

Those who cavalierly reject the Theory of Evolution as not being adequately supported by facts, seem to forget that their own theory is supported by no facts at all. Like the majority of men who are born to a given belief, they demand the most rigorous proof of any adverse belief, but assume that their own needs none. Here we find, scattered over the globe, vegetable and animal organisms numbering, of the one kind (according to Humboldt), some 320,000 species, and of the other, some 2,000,000 species (see Carpenter); and if to these we add the numbers of animal and vegetable species which have become extinct, we may safely estimate the number of species that have existed, and are existing, on the Earth, at not less than *ten millions*. Well, which is the most rational theory about these ten millions of species? Is it most likely that there have been ten millions of special creations? or is it most likely that, by continual modifications due to change of circumstances, ten millions of varieties have been produced, as varieties are being produced still?

Doubtless many will reply that they can more easily conceive ten millions of special creations to have taken place,

than they can conceive that ten millions of varieties have arisen by successive modifications. All such, however, will find, on inquiry, that they are under an illusion. This is one of the many cases in which men do not really believe, but rather *believe they believe*. It is not that they can truly conceive ten millions of special creations to have taken place, but that they *think they can do so*. Careful introspection will show them that they have never yet realized to themselves the creation of even *one* species. If they have formed a definite conception of the process, let them tell us how a new species is constructed, and how it makes its appearance. Is it thrown down from the clouds? or must we hold to the notion that it struggles up out of the ground? Do its limbs and viscera rush together from all the points of the compass? or must we receive the old Hebrew idea, that God takes clay and moulds a new creature? If they say that a new creature is produced in none of these modes, which are too absurd to be believed, then they are required to describe the mode in which a new creature *may* be produced—a mode which does *not* seem absurd; and such a mode they will find that they neither have conceived nor can conceive.

Should the believers in special creations consider it unfair thus to call upon them to describe how special creations take place, I reply that this is far less than they demand from the supporters of the Development Hypothesis. They are merely asked to point out a *conceivable* mode. On the other hand, they ask, not simply for a *conceivable* mode, but for the *actual* mode. They do not say—Show us how this *may* take place; but they say—Show us how this *does* take place. So far from its being unreasonable to put the above question,

it would be reasonable to ask not only for a *possible* mode of special creation, but for an *ascertained* mode; seeing that this is no greater a demand than they make upon their opponents.

And here we may perceive how much more defensible the new doctrine is than the old one. Even could the supporters of the Development Hypothesis merely show that the origination of species by the process of modification is conceivable, they would be in a better position than their opponents. But they can do much more than this. They can show that the process of modification has effected, and is effecting, decided changes in all organisms subject to modifying influences. Though, from the impossibility of getting at a sufficiency of facts, they are unable to trace the many phases through which any existing species has passed in arriving at its present form, or to identify the influences which caused the successive modifications; yet, they can show that any existing species—animal or vegetable—when placed under conditions different from its previous ones, *immediately begins to undergo certain changes fitting it for the new conditions*. They can show that in successive generations these changes continue; until, ultimately, the new conditions become the natural ones. They can show that in cultivated plants, in domesticated animals, and in the several races of men, such alterations have taken place. They can show that the degrees of difference so produced are often, as in dogs, greater than those on which distinctions of species are in other cases founded. They can show that it is a matter of dispute whether some of these modified forms are varieties or separate species. They can show, too, that the changes daily taking place in ourselves—the facility that attends long practice, and the loss of aptitude that begins when practice ceases—the strengthening of passions habitually gratified, and the weakening of those habitually curbed—the development of every faculty, bodily,

moral, or intellectual, according to the use made of it—are all explicable on this same principle. And thus they can show that throughout all organic nature there *is* at work a modifying influence of the kind they assign as the cause of these specific differences: an influence which, though slow in its action, does, in time, if the circumstances demand it, produce marked changes—an influence which, to all appearance, would produce in the millions of years, and under the great varieties of condition which geological records imply, any amount of change.

Which, then, is the most rational hypothesis?—that of special creations, which has neither a fact to support it nor is even definitely conceivable; or that of modification, which is not only definitely conceivable, but is countenanced by the habitudes of every existing organism?

That by any series of changes a protozoon should ever become a mammal, seems to those who are not familiar with zoology, and who have not seen how clear becomes the relationship between the simplest and the most complex forms when intermediate forms are examined, a very grotesque notion. Habitually, looking at things rather in their statical aspect than in their dynamical aspect, they never realize the fact that, by small increments of modification, any amount of modification may in time be generated. That surprise which they feel on finding one whom they last saw as a boy, grown into a man, becomes incredulity when the degree of change is greater. Nevertheless, abundant instances are at hand of the mode in which we may pass to the most diverse forms by insensible gradations. Arguing the matter some time since with a learned professor, I illustrated my position thus:—You admit that there is no apparent relationship between a circle and an hyperbola. The one is a finite curve; the other is an infinite one. All parts of the one are alike; of the other no parts are alike [save parts on its opposite sides]. The

one incloses a space; the other will not inclose a space though produced for ever. Yet opposite as are these curves in all their properties, they may be connected together by a series of intermediate curves, no one of which differs from the adjacent ones in any appreciable degree. Thus, if a cone be cut by a plane at right angles to its axis we get a circle. If, instead of being perfectly at right angles, the plane subtends with the axis an angle of $89^{\circ} 59'$, we have an ellipse which no human eye, even when aided by an accurate pair of compasses, can distinguish from a circle. Decreasing the angle minute by minute, the ellipse becomes first perceptibly eccentric, then manifestly so, and by and by acquires so immensely elongated a form, as to bear no recognizable resemblance to a circle. By continuing this process, the ellipse passes insensibly into a parabola; and, ultimately, by still further diminishing the angle, into an hyperbola. Now here we have four different species of curve—circle, ellipse, parabola, and hyperbola—each having its peculiar properties and its separate equation, and the first and last of which are quite opposite in nature, connected together as members of one series, all producible by a single process of insensible modification.

But the blindness of those who think it absurd to suppose that complex organic forms may have arisen by successive modifications out of simple ones, becomes astonishing when we remember that complex organic forms are daily being thus produced. A tree differs from a seed immeasurably in every respect—in bulk, in structure, in colour, in form, in chemical composition: differs so greatly that no visible resemblance of any kind can be pointed out between them. Yet is the one changed in the course of a few years into the other: changed so gradually, that at no moment can it be said—Now the seed ceases to be, and the tree exists. What can be more widely

contrasted than a newly-born child and the small, semi-transparent spherule constituting the human ovum? The infant is so complex in structure that a cyclopadia is needed to describe its constituent parts. The germinal vesicle is so simple that it may be defined in a line. Nevertheless a few months suffice to develop the one out of the other; and that, too, by a series of modifications so small, that were the embryo examined at successive minutes, even a microscope would with difficulty disclose any sensible changes. That the uneducated and the ill-educated should think the hypothesis that all races of beings, man inclusive, may in process of time have been evolved from the simplest monad, a ludicrous one, is not to be wondered at. But for the physiologist, who knows that every individual being is so evolved—who knows, further, that in their earliest condition the germs of all plants and animals whatever are so similar, "that there is no appreciable distinction amongst them, which would enable it to be determined whether a particular molecule is the germ of a *Conferva* or of an Oak, of a *Zoophyte* or of a Man;"¹ for him to make a difficulty of the matter is inexcusable. Surely if a single cell may, when subjected to certain influences, become a man in the space of twenty years: there is nothing absurd in the hypothesis that under certain other influences, a cell may, in the course of millions of years, give origin to the human race.

We have, indeed, in the part taken by many scientific men in this controversy of "*Law versus Miracle*," a good illustration of the tenacious vitality of superstitions. Ask one of our leading geologists or physiologists whether he believes in the Mosaic account of the creation, and he will take the question as next to an insult. Either he rejects the narrative entirely, or understands it in some

¹ Carpenter, *Principles of Comparative Physiology*, p. 474.

...vague non-natural sense. Yet one part of it he unconsciously adopts; and that, too, literally. For whence has he got this notion of "special creations," which he thinks so reasonable, and fights for so vigorously? Evidently he can trace it back to no other source than this myth which he repudiates. He has not a single fact in nature to cite in proof of it; nor is he prepared with any chain of

reasoning by which it may be established. Catechize him, and he will be forced to confess that the notion was put into his mind in childhood as part of a story which he now thinks absurd. And why, after rejecting all the rest of the story, he should strenuously defend this last remnant of it, as though he had received it on valid authority, he would be puzzled to say.

THE GENESIS OF SCIENCE

(1854)

THERE still prevails among men a vague notion that scientific knowledge differs in nature from ordinary knowledge. By the Greeks, with whom Mathematics—literally *things learnt*—was alone considered as knowledge proper, the distinction must have been strongly felt; and it has ever since maintained itself in the general mind. Though, considering the contrast between the achievements of science and those of daily unmethodic thinking, it is not surprising that such a distinction has been assumed; yet it needs but to rise a little above the common point of view, to see that it is but a superficial distinction. The same faculties are employed in both cases, and in both cases their mode of operation is fundamentally the same. If we say that science is organized knowledge, we are met by the truth that all knowledge is organized in a greater or less degree—that the commonest actions of the household and the field presuppose facts colligated, inferences drawn, results expected; and that the general success of these actions proves the data by which they were guided to have been correctly put together. If, again, we say that science is prevision—is a seeing beforehand—is a knowing in what times, places, combinations, or sequences, specified phenomena will be found; we are obliged to confess that the definition

includes much that is foreign to science in its ordinary acceptation: for example, a child's knowledge of an apple. This, as far as it goes, consists in previsions. When a child sees a certain form and colours, it knows that if it puts out its hand it will have certain impressions of resistance, and roundness, and smoothness; and if it bites, a certain taste. And manifestly its general acquaintance with surrounding objects is of like nature—is made up of facts concerning them, grouped so that any part of a group being perceived, the existence of the other facts included in it is foreseen. If, once more, we say that science is *exact* prevision, we still fail to establish the supposed difference. Not only do we find that much of what we call science is not exact, and that some of it, as physiology, can never become exact; but we find further, that many of the previsions constituting the common stock alike of wise and foolish, *are* exact. That an unsupported body will fall, that a lighted candle will go out when immersed in water; that ice will melt when thrown on the fire—these, and many like predictions relating to the familiar properties of things, have as high a degree of accuracy as predictions are capable of. It is true that the results foreseen are of a very general character; but it is none the less true that they are

correct as far as they go ; and this is all that is requisite to fulfil the definition. There is perfect accordance between the anticipated phenomena and the actual ones ; and no more than this can be said of the highest achievements of the sciences specially characterized as exact.

Seeing thus that the assumed distinction between scientific knowledge and common knowledge cannot be sustained ; and yet feeling, as we must, that however impossible it may be to draw a line between them, the two are not practically identical ; there arises the question—What is the relationship between them ? A partial answer to this question may be drawn from the illustrations just given. On reconsidering them, it will be observed that those portions of ordinary knowledge which are identical in character with scientific knowledge, comprehend only such combinations of phenomena as are directly cognizable by the senses, and are of simple, invariable nature. That the smoke from a fire which she is lighting will ascend, and that the fire will presently boil the water placed over it, are previsions which the servant-girl makes equally well with the most learned physicist ; but they are previsions concerning phenomena in constant and direct relation—phenomena that follow visibly and immediately after their antecedents—phenomena of which the causation is neither remote nor obscure—phenomena which may be predicted by the simplest possible act of reasoning. If, now, we pass to the previsions constituting science—that an eclipse of the moon will happen at a specified time ; that when a barometer is taken to the top of a mountain of known height, the mercurial column will descend a stated number of inches ; that the poles of a galvanic battery immersed in water will give off, the one an inflammable and the other an inflammable gas, in definite ratio—we perceive that the relations involved are not of a kind habitually presented to our senses. They depend, some of them, on special combinations of causes : and

in some of them the connexion between antecedents and consequents is established only by an elaborate series of inferences. A broad distinction, therefore, between scientific knowledge and common knowledge is its remoteness from perception. If we regard the cases in their most general aspect, we see that the labourer who, on hearing certain notes in the adjacent hedge, can describe the particular form and colours of the bird making them, and the astronomer who, having calculated a transit of Venus, can delineate the black spot entering on the sun's disc, as it will appear through the telescope, at a specified hour, do essentially the same thing. Each knows that on fulfilling the requisite conditions, he shall have a preconceived impression—that after a definite series of actions will come a group of sensations of a foreknown kind. The difference, then, is neither in the fundamental character of the mental acts ; nor in the correctness of the previsions accomplished by them ; but in the complexity of the processes required to achieve the previsions. Much of our common knowledge is, as far as it goes, precise. Science does not increase its precision. What then does it do ? It reduces other knowledge to the same degree of precision. That certainty which direct perception gives us respecting coexistences and sequences of the simplest and most accessible kind, science gives us respecting coexistences and sequences, complex in their dependencies, or inaccessible to immediate observation. In brief, regarded from this point of view, science may be called an *extension of the perceptions by means of reasoning*.

On further considering the matter, however, it will perhaps be felt that this definition does not express the whole fact—that inseparable as science may be from common knowledge, and completely as we may fill up the gap between the simplest previsions of the child and the most recondite ones of the physicist, by interposing a series of previsions in which the complexity of reasoning

each other. There must be incompleteness in any history of the sciences, which, leaving out of view the first steps of their genesis, commences with them only when they assume definite forms. There must be grave defects, if not a general untruth, in a philosophy of the sciences considered in their interdependence and development, which neglects the inquiry how they came to be distinct sciences, and how they were severally evolved out of the chaos of primitive ideas. Not only a direct consideration of the matter, but all analogy, goes to show that in the earlier and simpler stages must be sought the key to all subsequent intricacies. The time was when the anatomy and physiology of the human being were studied by themselves—when the adult man was analyzed and the relations of parts and of functions investigated, without reference either to the relations exhibited in the embryo or to the homologous relations existing in other creatures. Now, however, it has become manifest that no true conceptions are possible under such conditions. Anatomists and physiologists find that the real natures of organs and tissues can be ascertained only by tracing their early evolution; and that the affinities between existing genera can be satisfactorily made out only by examining the fossil genera to which they are akin. Well, is it not clear that the like must be true concerning all things that undergo development? Is not science a growth? Has not science, too, its embryology? And must not the neglect of its embryology lead to a misunderstanding of the principles of its evolution and of its existing organization?

There are *a priori* reasons, therefore, for doubting the truth of all philosophies of the sciences which tacitly proceed upon the common notion that scientific knowledge and ordinary knowledge are separate; instead of commencing, as they should, by affiliating the one upon the other, and showing how it gradually came to be distinguishable from the other. We may expect to find their

generalizations essentially artificial; and we shall not be deceived. Some illustrations of this may here be fitly introduced, by way of preliminary to a brief sketch of the genesis of science from the point of view indicated. And we cannot more readily find such illustrations than by glancing at a few of the various *classifications* of the sciences that have from time to time been proposed. To consider all of them would take too much space: we must content ourselves with some of the latest.

Commencing with those which may be soonest disposed of, let us notice, first, the arrangement propounded by Oken. An abstract of it runs thus:—

Part I. MATHEMATICS. *Pneumatogeny*: Primary Act, Primary Consciousness, God, Primary Rest, Time, Polarity, Motion, Man, Space, Point, Line, Surface, Globe, Rotation. *Hylogeny*: Gravity, Matter, Ether, Heavenly Bodies, Light, Heat, Fire.

(He explains that MATHEMATICS is the doctrine of the whole; *Pneumatogeny* being the doctrine of immaterial totalities, and *Hylogeny* that of material totalities.)

Part II. ONTOLOGY. *Cosmogeny*: Rest, Centre, Motion, Line, Planets, Form, Planetary System, Comets. *Stoichiogeny*: Condensation, Simple Matter, Elements, Air, Water, Earth. — *Stoichiology*: Functions of the Elements, &c., &c. Kingdoms of *Astru* Individuals.

(He says in explanation that "ONTOLOGY teaches us the phenomena of matter. The first of these are the heavenly bodies comprehended by *Cosmogeny*. These divide into elements — *Stoichiogeny*. The earth element divides into minerals — *Mineralogy*. These unite into one collective body — *Geogeny*. The whole in singulars is the living, or *Organic*, which again divides into plants and animals. *Biology*, therefore, divides into *Organogeny*, *Phytosphy*, *Zoosphy*.")

FIRST KINGDOM.—MINERALS. *Mineralogy*, *Geology*.

Part III. BIOLOGY.—*Organosphy*, *Phytogeny*, *Phyto-physiology*, *Phytology*, *Zoogeny*, *Physiology*, *Zoology*, *Psychology*.

A glance over this confused scheme shows that it is an attempt to classify knowledge, not after the order in which

it has been, or may be, built up, in the human consciousness, but after an assumed order of creation. It is a pseudo scientific cosmogony, akin to those which men have enunciated from the earliest times downwards, and only a little more respectable. As such it will not be thought worthy of much consideration by those who, like ourselves, hold that experience is the sole origin of knowledge. Otherwise, it might have been needful to dwell on the incongruities of the arrangement to ask how motion can be treated of before space? how there can be rotation without matter to rotate? how polarity can be dealt with without involving points and lines? But it will serve our present purpose just to indicate a few of the absurdities resulting from the doctrine which Oken seems to hold in common with Hegel, that "to philosophize on Nature is to re-think the great thought of Creation. Here is a sample:—

"Mathematics is the universal science, so also is Physio-philosophy, although it is only a part, or rather but a condition of the universe, both the one, or mutually congruent.

"Mathematics is, however, a science of mere forms without substance. Physio-philosophy is, therefore, *mathematics endowed with substance*.

From the English point of view it is sufficiently amusing to find such a dogma not only gravely stated, but stated as an unquestionable truth. Here we see the experiences of quantitative relations which men have gathered from surrounding bodies and generalized (experiences which had been scarcely at all generalized at the beginning of the historic period)—we find these generalized experiences, these intellectual abstractions, elevated into concrete actualities, projected back into Nature, and considered as the internal frame-work of things—the skeleton by which matter is sustained. But this new form of the old realism, is by no means the most startling of the physio-philosophic principles. We presently read that,

"The highest mathematical idea, or the fundamental principle of all mathematics is the zero 0 * * *

"Zero is in itself nothing. Mathematics is based upon nothing, and, consequently, arises out of nothing.

"Out of nothing *therefore* it is possible for something to arise for mathematics consisting of propositions, is a something in relation to 0.

By such consequences and therefore it is, that men philosophize when they re-think the great thought of Creation. By dogmas that pretend to be reasons nothing is made to generate mathematics, and by clothing mathematics with matter we have the universe! If now we deny, as we do deny, that the highest mathematical idea is the zero—if on the other hand we assert, as we do assert, that the fundamental idea underlying all mathematics is that of equality, the whole of Oken's cosmogony disappears. And here indeed, we may see illustrated the distinctive peculiarity of the German method of procedure in these matters: the bastard *a priori* method as it may be termed.

The legitimate *a priori* method sets out with propositions of which the negation is inconceivable: the *a priori* method as illegitimately applied sets out either with propositions of which the negation is not inconceivable, or with propositions like Oken's of which the *affirmation* is inconceivable.

It is needless to proceed further with the analysis: else might we detail the steps by which Oken arrives at the conclusions that "the planets are concoloured colours, for they are concoloured light"; that "the sphere is the expanded nothing, that gravity is a weighty nothing, the essence striving towards a centre, that the earth is the identical water, the indifferent, air the different, or the first the centre, the second the radius, the last the periphery of the general globe or of fire." To comment on them would be nearly as absurd as are the propositions themselves. Let us pass on to another of

the German systems of knowledge—that of Hegel.

The simple fact that Hegel puts Jacob Boehme on a par with Bacon, suffices alone to show that his stand-point is far remote from the one usually regarded as scientific: so far remote, indeed, that it is not easy to find any common basis on which to found a criticism. Those who hold that the mind is moulded into conformity with surrounding things by the agency of surrounding things, are necessarily at a loss how to deal with those who, like Schelling and Hegel, assert that surrounding things are solidified mind—that Nature is “petrified intelligence.” However, let us briefly glance at Hegel’s classification. He divides philosophy into three parts:—

1. *Logic*, or the science of the idea in itself, the pure idea.

2. *The Philosophy of Nature*, or the science of the idea considered under its other form—of the idea as Nature.

3. *The Philosophy of the Mind*, or the science of the idea in its return to itself.

Of these, the second is divided into the natural sciences, commonly so-called; so that in its more detailed form the series runs thus:—*Logic*, *Mechanics*, *Physics*, *Organic Physics*, *Psychology*.

Now, if we believe with Hegel, first, that thought is the true essence of man; second, that thought is the essence of the world; and that, therefore, there is nothing but thought; his classification, beginning with the science of pure thought, may be acceptable. But otherwise, it is an obvious objection to his arrangement, that thought implies things thought of—that there can be no logical forms without the substance of experience—that the science of ideas and the science of things must have a simultaneous origin. Hegel, however, anticipates this objection, and, in his obstinate idealism, replies, that the contrary is true. He affirms that all contained in the forms, to become something, requires to be thought; and that logical forms are the foundations of all things.

It is not surprising that, starting from

such premises, and reasoning after this fashion, Hegel finds his way to strange conclusions. Out of *space* and *time* he proceeds to build up *motion*, *matter*, *repulsion*, *attraction*, *weight*, and *inertia*. He then goes on to logically evolve the solar system. In doing this he widely diverges from the Newtonian theory; reaches by syllogism the conviction that the planets are the most perfect celestial bodies; and, not being able to bring the stars within his theory, says that they are mere formal existences and not living matter, and that as compared with the solar system they are as little admirable as a cutaneous eruption or a swarm of flies.¹ Results so absurd might be left as self-disproved, were it not that speculators of this class are not alarmed by any amount of incongruity with established beliefs. The only efficient mode of treating systems like this of Hegel, is to show that they are self-destructive—that by their first steps they ignore that authority on which all their subsequent steps depend. If Hegel professes, as he manifestly does, to develop his scheme by reasoning—if he presents successive inferences as *necessarily following* from certain premises; he implies the postulate that a belief which necessarily follows after certain antecedents is a true belief; and did an opponent reply to one of his inferences that, though it was impossible to think the opposite, yet the opposite was true, he would consider the reply irrational. The procedure, however, which he would thus condemn as destructive of all thinking whatever, is just the procedure exhibited in the enunciation of his own first principles. Man-kind find themselves unable to conceive that there can be thought without things thought of. Hegel, however, asserts that there *can* be thought without things thought of. That ultimate test of a true proposition—the inability of the human mind to conceive the negation of it—

¹ It is curious that the author of “*The Plurality of Worlds*,” with quite other aims, should have persuaded himself into similar conclusions.

which in all the successive steps of his arguments he considers valid, he considers invalid where it suits his convenience to do so; and yet at the same time denies the right of an opponent to follow his example. If it is competent for him to posit dogmas which are the direct negations of what human consciousness recognizes; then is it also competent for his antagonists to stop him at any moment by saying, that though the particular inference he is drawing seems to his mind, and to all minds, necessarily to follow from the premises, yet it is not true, but the contrary inference is true. Or, to state the dilemma in another form:—If he sets out with inconceivable propositions, then may he with equal propriety make all his succeeding propositions inconceivable ones—may at every step throughout his reasoning draw the opposite conclusion to that which seems involved.

Hegel's mode of procedure being thus essentially suicidal, the Hegelian classification which depends upon it, falls to the ground. Let us consider next that of M. Comte.

As all his readers must admit, M. Comte presents us with a scheme of the sciences which, unlike the foregoing ones, demands respectful consideration. Widely as we differ from him, we cheerfully bear witness to the largeness of his views, the clearness of his reasoning, and the value of his speculations as contributing to intellectual progress. Did we believe a serial arrangement of the sciences to be possible, that of M. Comte would certainly be the one we should adopt. His fundamental propositions are thoroughly intelligible; and, if not true, have a great semblance of truth. His successive steps are logically coordinated; and he supports his conclusions by a considerable amount of evidence—evidence which, so long as it is not critically examined, or not met by counter evidence, seems to substantiate his positions. But it only needs to assume that antagonistic attitude which ought to be assumed towards new doc-

trines, in the belief that, if true, they will prosper by conquering objectors—it needs but to test his leading doctrines either by other facts than those he cites, or by his own facts differently applied, to show that they will not stand. We will proceed thus to deal with the general principle on which he bases his hierarchy of the sciences.

In the condensed translation of the *Positive Philosophy*, by Miss Martineau, M. Comte says:—"Our problem is, then, to find the one *rational* order, amongst a host of possible systems."..... "This order is determined by the degree of simplicity, or, what comes to the same thing, of generality of their phenomena." And the arrangement he deduces runs thus:—*Mathematics, Astronomy, Physics, Chemistry, Physiology, Social Physics*. This he asserts to be "the true *filiation* of the sciences." He asserts further, that the principle of progression from a greater to a less degree of generality, "which gives this order to the whole body of science, arranges the parts of each science." And, finally, he asserts that the gradations thus established *a priori* among the sciences and the parts of each science, "is in essential conformity with the order which has spontaneously taken place among the branches of natural philosophy"; or, in other words, corresponds with the order of historic development.

Let us compare these assertions with the facts. That there may be perfect fairness, let us make no choice, but take as the field for our comparison, the succeeding section treating of the first science—*Mathematics*; and let us use none but M. Comte's own facts, and his own admissions. Confining ourselves to this one science, we are limited to comparisons between its several parts. M. Comte says, that the parts of each science must be arranged in the order of their decreasing generality; and that this order of decreasing generality agrees with the order of historic development. Our inquiry will be, then, whether the history of mathematics confirms this statement.

Carrying out his principle, M Comte divides Mathematics into "Abstract Mathematics, or the Calculus (taking the word in its most extended sense) and Concrete Mathematics, which is composed of General Geometry and of Rational Mechanics." The subject-matter of the first of these is *number*, the subject-matter of the second includes *space, time, motion, force*. The one possesses the highest possible degree of generality, for all things whatever admit of enumeration. The others are less general; seeing that there are endless phenomena that are not cognizable either by general geometry or rational mechanics. In conformity with the alleged law, therefore, the evolution of the calculus must throughout have preceded the evolution of the concrete sub-sciences. Now somewhat awkwardly for him, the first remark M Comte makes bearing on this point is, that "from an historical point of view, mathematical analysis *appears to have arisen out of* the contemplation of geometrical and mechanical facts.' True, he goes on to say that, "it is not the less independent of these sciences logically speaking," for that "analytical ideas are, above all others, universal, abstract, and simple and geometrical conceptions are necessarily founded on them." We will not take advantage of this last passage to charge M Comte with teaching, after the fashion of Hegel, that there can be thought without things thought of. We are content simply to compare the assertion, that analysis arose out of the contemplation of geometrical and mechanical facts, with the assertion that geometrical conceptions are founded upon analytical ones. Literally interpreted they exactly cancel each other. Interpreted, however, in a liberal sense, they imply, what we believe to be demonstrable, that the two had a *simultaneous origin*. The passage is either nonsense, or it is an admission that abstract and concrete mathematics are coeval. Thus, at the very first step, the alleged congruity between the order of generality and the order of evolution, does not hold good

But may it not be that though abstract and concrete mathematics took their rise at the same time, the one afterwards developed more rapidly than the other; and has ever since remained in advance of it? No. and again we call M. Comte himself as witness. Fortunately for his argument he has said nothing respecting the early stages of the concrete and abstract divisions after their divergence from a common root, otherwise the advent of Algebra long after the Greek geometry had reached a high development, would have been an inconvenient fact for him to deal with. But passing over this, and limiting ourselves to his own statements, we find, at the opening of the next chapter, the admission, that "the historical development of the abstract portion of mathematical science has, since the time of Descartes, been for the most part *determined* by that of the concrete." Further on we read respecting algebraic functions that "most functions were concrete in their origin—even those which are at present the most purely abstract, and the ancients discovered only through geometrical definitions elementary algebraic properties of functions to which a numerical value was not attached till long afterwards, rendering abstract to us what was concrete to the old geometers." How do these statements tally with his doctrine? Again, having divided the calculus into algebraic and arithmetical, M. Comte admits, as perforce he must, that the algebraic is more general than the arithmetical, yet he will not say that algebra preceded arithmetic in point of time. And again, having divided the calculus of functions into the calculus of direct functions (common algebra) and the calculus of indirect functions (transcendental analysis), he is obliged to speak of this last as possessing a higher generality than the first; yet it is far more modern. Indeed, by implication M Comte himself confesses this incongruity; for he says:—"It might seem that the transcendental analysis ought to be studied before the ordinary, as it

provides the equations which the other has to resolve. But though the transcendental is *logically independent of the ordinary*, it is best to follow the usual method of study, taking the ordinary first." In all these cases, then, as well as at the close of the section where he predicts that mathematicians will in time "create procedures of a *wider generality*," M. Comte makes admissions that are diametrically opposed to the alleged law.

In the succeeding chapters treating of the concrete department of mathematics, we find similar contradictions. M. Comte himself names the geometry of the ancients *special* geometry, and that of the moderns *general* geometry. He admits that while "the ancients studied geometry with reference to the *bodies* under notice, or specially; the moderns study it with reference to the *phenomena* to be considered, or generally." He admits that while "the ancients extracted all they could out of one line or surface before passing to another," "the moderns, since Descartes, employ themselves on questions which relate to any figure whatever." These facts are the reverse of what, according to his theory, they should be. So, too, in mechanics. Before dividing it into statics and dynamics, M. Comte treats of the three laws of *motion*, and is obliged to do so; for statics, the more *general* of the two divisions, though it does not involve motion, is impossible as a science until the laws of motion are ascertained. Yet the laws of motion pertain to dynamics, the more *special* of the divisions. Further on he points out that after Archimedes, who discovered the law of equilibrium of the lever, statics made no progress until the establishment of dynamics enabled us to seek "the conditions of equilibrium through the laws of the composition of forces." And he adds—"At this day *this is the method universally employed*. At the first glance it does not appear the most rational—dynamics being more complicated than statics, and precedence being natural to the simpler. It would,

in fact, be more philosophical to refer dynamics to statics, as has since been done." Sundry discoveries are afterwards detailed, showing how completely the development of statics has been achieved by considering its problems dynamically; and before the close of the section M. Comte remarks that "before hydrostatics could be comprehended under statics, it was necessary that the abstract theory of equilibrium should be made so general as to apply directly to fluids as well as solids. This was accomplished when Lagrange supplied, as the basis of the whole of rational mechanics, the single principle of virtual velocities." In which statement we have two facts directly at variance with M. Comte's doctrine;—first, that the simpler science, statics, reached its present development only by the aid of the principle of virtual velocities, which belongs to the more complex science, dynamics; and that this "single principle" underlying all rational mechanics—this *most general form* which includes alike the relations of statical, hydrostatical, and dynamical forces—was reached so late as the time of Lagrange.

Thus it is *not* true that the historical succession of the divisions of mathematics has corresponded with the order of decreasing generality. It is *not* true that abstract mathematics was evolved antecedently to, and independently of, concrete mathematics. It is *not* true that of the sub-divisions of abstract mathematics, the more general came before the more special. And it is *not* true that concrete mathematics, in either of its two sections, began with the *most* abstract and advanced to the less abstract truths.

It may be well to mention, parenthetically, that, in defending his alleged law of progression from the general to the special, M. Comte somewhere comments upon the two meanings of the word *general*, and the resulting liability to confusion. Without now discussing whether the asserted distinction exists in other cases, it is manifest that it does not exist

here. In sundry of the instances above quoted, the endavours made by M. Comte himself to disguise, or to explain away, the precedence of the special over the general, clearly indicate that the generality spoken of is of the kind meant by his formula. And it needs but a brief consideration of the matter to show that, even did he attempt it, he could not distinguish this generality which, as above proved, frequently comes last, from the generality which he says always comes first. For what is the nature of that mental process by which objects, dimensions, weights, times, and the rest, are found capable of having their relations expressed numerically? It is the formation of certain abstract conceptions of unity, duality, and multiplicity, which are applicable to all things alike. It is the invention of general symbols serving to express the numerical relations of entities, whatever be their special characters. And what is the nature of the mental process by which numbers are found capable of having their relations expressed algebraically? It is the same. It is the formation of certain abstract conceptions of numerical functions which are constant whatever be the magnitudes of the numbers. It is the invention of general symbols serving to express the relations between numbers, as numbers express the relations between things. Just as arithmetic deals with the common properties of lines, areas, bulks, forces, periods; so does algebra deal with the common properties of the numbers which arithmetic presents.

Having shown that M. Comte's alleged law of progression does not hold among the several parts of the same science, let us see how it agrees with the facts when applied to the separate sciences. "Astronomy," says M. Comte (*Positive Philosophy*, Book III.), "was a positive science, in its geometrical aspect, from the earliest days of the school of Alexandria; but Physics, which we are now to consider, had no positive character at all till Galileo made his great discoveries on the fall of heavy bodies." On this,

our comment is simply that it is a misrepresentation based upon an arbitrary misuse of words—a mere verbal artifice. By choosing to exclude from terrestrial physics those laws of magnitude, motion, and position, which he includes in celestial physics, M. Comte makes it appear that the last owes nothing to the first. Not only is this unwarrantable, but it is radically inconsistent with his own scheme of divisions. At the outset he says—and as the point is important we quote from the original—"Pour la *physique inorganique* nous voyons d'abord, en nous conformant toujours à l'ordre de généralité et de dépendance des phénomènes, qu'elle doit être partagée en deux sections distinctes, suivant qu'elle considère les phénomènes généraux de l'univers, ou, en particulier, ceux que présentent les corps terrestres. D'où la physique céleste, ou l'astronomie, soit géométrique, soit mécanique; et la physique terrestre." Here then we have *inorganic physics* clearly divided into *celestial physics* and *terrestrial physics*—the phenomena presented by the universe, and the phenomena presented by earthly bodies. If now celestial bodies and terrestrial bodies exhibit sundry leading phenomena in common, as they do, how can the generalization of these common phenomena be considered as pertaining to the one class rather than to the other? If inorganic physics includes geometry (which M. Comte has made it do by comprehending *geometrical astronomy* in its sub-section, celestial physics); and if its other sub-section, terrestrial physics, treats of things having geometrical properties; how can the laws of geometrical relations be excluded from terrestrial physics? Clearly, if celestial physics includes the geometry of objects in the heavens, terrestrial physics includes the geometry of objects on the earth. And if terrestrial physics includes terrestrial geometry, while celestial physics includes celestial geometry, then the geometrical part of terrestrial physics precedes the geometrical part of celestial physics; seeing that geometry gained its first

ideas from surrounding objects. Until men had learnt geometrical relations from bodies on the earth, it was impossible for them to understand the geometrical relations of bodies in the heavens. So, too, with celestial mechanics, which had terrestrial mechanics for its parent. The very conception of *force*, which underlies the whole of mechanical astronomy, is borrowed from our earthly experiences; and the leading laws of mechanical action as exhibited in scales, levers, projectiles, &c., had to be ascertained before the dynamics of the Solar System could be entered upon. What were the laws made use of by Newton in working out his grand discovery? The law of falling bodies disclosed by Galileo; that of the composition of forces also disclosed by Galileo; and that of centrifugal force found out by Huyghens—all of them generalizations of terrestrial physics. Yet, with facts like these before him, M. Comte places astronomy before physics in order of evolution! He does not compare the geometrical parts of the two together, and the mechanical parts of the two together; for this would by no means suit his hypothesis. But he compares the geometrical part of the one with the mechanical part of the other, and so gives a semblance of truth to his position. He is led away by a verbal illusion. Had he confined his attention to the things and disregarded the words, he would have seen that before mankind scientifically co-ordinated *any one class of phenomena* displayed in the heavens, they had previously co-ordinated a *parallel class of phenomena* displayed on the surface of the earth.

Were it needful we could fill a score pages with the incongruities of M. Comte's scheme. But the foregoing samples will suffice. So far is his law of evolution of the sciences from being tenable, that, by following his example, and arbitrarily ignoring one class of facts, it would be possible to present, with great plausibility, just the opposite generalization to that which he enun-

ciates. While he asserts that the rational order of the sciences, like the order of their historic development, "is determined by the degree of simplicity, or, what comes to the same thing, of generality of their phenomena;" it might contrariwise be asserted that, commencing with the complex and the special, mankind have progressed step by step to a knowledge of greater simplicity and wider generality. So much evidence is there of this as to have drawn from Whewell, in his *History of the Inductive Sciences*, the remark that "the reader has already seen repeatedly in the course of this history, complex and derivative principles presenting themselves to men's minds before simple and elementary ones." Even from M. Comte's own work, numerous facts, admissions, and arguments, might be picked out, tending to show this. We have already quoted his words in proof that both abstract and concrete mathematics have progressed towards a higher degree of generality, and that he looks forward to a higher generality still. Just to strengthen this adverse hypothesis, let us take a further instance. From the *particular* case of the scales, the law of equilibrium of which was familiar to the earliest nations known, Archimedes advanced to the more *general* case of the lever of which the arms may or may not be equal; the law of equilibrium of which *includes* that of the scales. By the help of Galileo's discovery concerning the composition of forces, D'Alembert "established, for the first time, the equations of equilibrium of *any* system of forces applied to the different points of a solid body"—equations which include all cases of levers and an infinity of cases besides. Clearly this is progress towards a higher generality—towards a knowledge more independent of special circumstances—towards a study of phenomena "the most disengaged from the incidents of particular cases;" which is M. Comte's definition of "the most simple phenomena." Does it not indeed follow from the admitted fact, that

mental advance is from the concrete to the abstract, from the particular to the general, that the universal and therefore most simple truths are the last to be discovered? Should we ever succeed in reducing all orders of phenomena to some single law—say of atomic action, as M. Comte suggests—must not that law answer to his test of being *independent* of all others, and therefore most simple? And would not such a law generalize the phenomena of gravity, cohesion, atomic affinity, and electric repulsion, just as the laws of number generalize the quantitative phenomena of space, time and force?

The possibility of saying so much in support of an hypothesis the very reverse of M. Comte's, at once proves that his generalization is only a half truth. The fact is that neither proposition is correct by itself, and the actuality is expressed only by putting the two together. The progress of science is duplex. It is at once from the special to the general and from the general to the special. It is analytical and synthetical at the same time.

M. Comte himself observes that the evolution of science has been accomplished by the division of labour, but he quite misstates the mode in which this division of labour has operated. As he describes it, it has been simply an arrangement of phenomena into classes, and the study of each class by itself. He does not recognize the effect of progress in each class upon *all* other classes. He recognizes only the effect on the class succeeding it in his hierarchical scale. Or if he occasionally admits collateral influences and intercommunications, he does it so grudgingly, and so quickly puts the admissions out of sight and forgets them, as to leave the impression that, with but trifling exceptions, the sciences aid one another only in the order of their alleged succession. The fact is, however, that the division of labour in science, like the division of labour in society, and like the "physiological division of labour" in individual

organisms, has been not only a specialization of functions, but a continuous helping of each division by all the others, and of all by each. Every particular class of inquirers has, as it were, secreted its own particular order of truths from the general mass of material which observation accumulates, and all other classes of inquirers have made use of these truths as fast as they were elaborated, with the effect of enabling them the better to elaborate each its own order of truths. It was thus in sundry of the cases we have quoted as at variance with M. Comte's doctrine. It was thus with the application of Huyghens's optical discovery to astronomical observation by Galileo. It was thus with the application to the isochronism of the pendulum to the making of instruments for measuring intervals, astronomical and other. It was thus when the discovery that the refraction and dispersion of light did not follow the same law of variation, affected both astronomy and physiology by giving us achromatic telescopes and microscopes. It was thus when Bradley's discovery of the aberration of light enabled him to make the first step towards ascertaining the motions of the stars. It was thus when Cavendish's torsion balance experiment determined the specific gravity of the Earth, and so gave a datum for calculating the specific gravities of the Sun and Planets. It was thus when tables of atmospheric refraction enabled observers to write down the real places of the heavenly bodies instead of their apparent places. It was thus when the discovery of the different expansibilities of metals by heat gave us the means of correcting our chronometrical measurements of astronomical periods. It was thus when the lines of the prismatic spectrum were used to distinguish the heavenly bodies that are of like nature with the sun from those which are not. It was thus when, as recently, an electro telegraphic instrument was invented for the more accurate registration of meridional transits. It was thus when the difference in the

rates of a clock at the equator, and nearer the poles, gave data for calculating the oblateness of the earth, and accounting for the precession of the equinoxes. It was thus—but it is needless to continue. Here, within our own limited knowledge of its history, we have named ten additional cases in which the single science of astronomy has owed its advance to sciences coming *after* it in M. Comte's series. Not only its minor changes, but its greatest revolutions have been thus determined. Kepler could not have discovered his celebrated laws had it not been for Tycho Brahe's accurate observations; and it was only after some progress in physical and chemical science that the improved instruments with which those observations were made, became possible. The heliocentric theory of the Solar System had to wait until the invention of the telescope before it could be finally established. Nay, even the grand discovery of all—the law of gravitation—depended for its proof upon an operation of physical science, the measurement of a degree on the Earth's surface. So completely, indeed, did it thus depend, that Newton *had actually abandoned his hypothesis* because the length of a degree, as then stated, brought out wrong results; and it was only after Picart's more exact measurement was published, that he returned to his calculations and proved his great generalization. Now this constant intercommunion which, for brevity's sake, we have illustrated in the case of one science only, has been taking place with all the sciences. Throughout the whole course of their evolution there has been a continuous *consensus* of the sciences—a *consensus* exhibiting a general correspondence with the *consensus* of the faculties in each phase of mental development; the one being an objective registry of the subjective state of the other.

From our present point of view, then, it becomes obvious that the conception of a *serial* arrangement of the sciences is a vicious one. It is not simply that, as

M. Comte admits, such a classification "will always involve something, if not arbitrary, at least artificial;" it is not, as he would have us believe, that, neglecting minor imperfections, such a classification may be substantially true; but it is that any grouping of the sciences in a succession gives a radically erroneous idea of their genesis and their dependencies. There is no "one *rational* order among a host of possible systems." There is no "true *filiation* of the sciences." The whole hypothesis is fundamentally false. Indeed, it needs but a glance at its origin to see at once how baseless it is. Why a *series*? What reason have we to suppose that the sciences admit of a *linear* arrangement? Where is our warrant for assuming that there is some *succession* in which they can be placed? There is no reason; no warrant. Whence then has arisen the supposition? To use M. Comte's own phraseology, we should say, it is a metaphysical conception. It adds another to the cases constantly occurring, of the human mind being made the measure of Nature. We are obliged to think in sequence; it is a law of our minds that we must consider subjects separately, one after another; *therefore* Nature must be serial—*therefore* the sciences must be classifiable in a succession. See here the birth of the notion, and the sole evidence of its truth. Men have been obliged, when arranging in books their schemes of education and systems of knowledge, to choose *some* order or other. And from inquiring what is the best order, have fallen into the belief that there is an order which truly represents the facts—have persevered in seeking such an order; quite overlooking the previous question whether it is likely that Nature has consulted the convenience of book-making. For German philosophers, who hold that Nature is "petrified intelligence," and that logical forms are the foundations of all things, it is a consistent hypothesis that as thought is serial, Nature is serial; but that M. Comte, who is so bitter an

opponent of all anthropomorphism, even in its most evanescent shapes, should have committed the mistake of imposing upon the external world an arrangement which so obviously springs from a limitation of the human consciousness, is somewhat strange. And it is the more strange when we call to mind how, at the outset, M. Comte remarks that in the beginning "*toutes les sciences sont cultivées simultanément par les mêmes esprits*"; that this is "*inévitables et même indispensables*"; and how he further remarks that the different sciences are "*comme les diverses branches d'un tronc unique*." Were it not accounted for by the distorting influence of a cherished hypothesis, it would be scarcely possible to understand how, after recognizing truths like these, M. Comte should have persisted in attempting to construct "*une échelle encyclopédique*."

The metaphor which M. Comte has here so inconsistently used to express the relations of the sciences—branches of one trunk—is an approximation to the truth, though not the truth itself. It suggests the facts that the sciences had a common origin; that they have been developing simultaneously; and that they have been from time dividing and sub-dividing. But it fails to suggest the fact, that the divisions and sub-divisions thus arising do not remain separate, but now and again re-unite in direct and indirect ways. They inosculate; they severally send off and receive connecting growths; and the intercommunion has been ever becoming more frequent, more intricate, more widely ramified. There has all along been higher specialization, that there might be a larger generalization; and a deeper analysis, that there might be a better synthesis. Each larger generalization has lifted sundry specializations still higher; and each better synthesis has prepared the way for still deeper analysis.

And here we may fitly enter upon the task awhile since indicated—a sketch of the Genesis of Science, regarded as a

gradual outgrowth from common knowledge—an extension of the perceptions by the aid of the reason. We propose to treat it as a psychological process historically displayed; tracing at the same time the advance from qualitative to quantitative prevision; the progress from concrete facts to abstract facts, and the application of such abstract facts to the analysis of new orders of concrete facts; the simultaneous advance in generalization and specialization; the continually increasing subdivision and reunion of the sciences; and their constantly improving *consensus*.

To trace out scientific evolution from its deepest roots would, of course, involve a complete analysis of the mind. For as science is a development of that common knowledge acquired by the unaided senses and uncultured reason, so is that common knowledge itself gradually built up out of the simplest perceptions. We must, therefore, begin somewhere abruptly; and the most appropriate stage to take for our point of departure will be the adult mind of the savage.

Commencing thus, without a proper preliminary analysis, we are naturally somewhat at a loss how to present, in a satisfactory manner, those fundamental processes of thought out of which science originates. Perhaps our argument may be best initiated by the proposition, that all intelligent action whatever depends upon the discerning of distinctions among surrounding things. The condition under which only it is possible for any creature to obtain food and avoid danger, is, that it shall be differently affected by different objects—that it shall be led to act in one way by one object, and in another way by another. In the lower orders of creatures this condition is fulfilled by means of an apparatus which acts automatically. In the higher orders the actions are partly automatic, partly conscious. And in man they are almost wholly conscious. Throughout, however, there must necessarily exist a certain

classification of things according to their properties—a classification which is either organically registered in the system, as in the inferior creation, or is formed by conscious experience, as in ourselves. And it may be further remarked, that the extent to which this classification is carried, roughly indicates the height of intelligence—that, while the lowest organisms are able to do little more than discriminate organic from inorganic matter; while the generality of animals carry their classifications no further than to a limited number of plants or creatures serving for food, a limited number of beasts of prey, and a limited number of places and materials; the most degraded of the human race possess a knowledge of the distinctive natures of a great variety of substances, plants, animals, tools, persons, &c.; not only as classes but as individuals.

What now is the mental process by which classification is effected? Manifestly it is a recognition of the *likeness* or *unlikeness* of things, either in respect of their sizes, colours, forms, weights, textures, tastes, &c., or in respect of their modes of action. By some special mark, sound, or motion, the savage identifies a certain four-legged creature he sees, as one that is good for food, and to be caught in a particular way; or as one that is dangerous; and acts accordingly. He has classed together all the creatures that are *alike* in this particular. And manifestly in choosing the wood out of which to form his bow, the plant with which to poison his arrows, the bone from which to make his fish-hooks, he identifies them through their chief sensible properties as belonging to the general classes, wood, plant, and bone, but distinguishes them as belonging to sub-classes by virtue of certain properties in which they are *unlike* the rest of the general classes they belong to; and so forms genera and species.

And here it becomes manifest that not only is classification carried on by grouping together in the mind things that are *like*; but that classes and sub-

classes are formed and arranged according to the *degrees of unlikeness*. Things strongly contrasted are alone distinguished in the lower stages of mental evolution; as may be any day observed in an infant. And gradually as the powers of discrimination increase, the strongly-contrasted classes at first distinguished, come to be each divided into sub-classes, differing from each other less than the classes differ; and these sub-classes are again divided after the same manner. By the continuance of which process, things are gradually arranged into groups, the members of which are less and less *unlike*; ending, finally, in groups whose members differ only as individuals, and not specifically. And thus there tends ultimately to arise the notion of *complete likeness*. For manifestly, it is impossible that groups should continue to be sub-divided in virtue of smaller and smaller differences, without there being a simultaneous approximation to the notion of *no difference*.

Let us next notice that the recognition of likeness and unlikeness, which underlies classification, and out of which continued classification evolves the idea of complete likeness—let us next notice that it also underlies the process of *naming*, and by consequence *language*. For all language consists, at the outset, of symbols which are as *like* to the things symbolized as it is practicable to make them. The language of signs is a means of conveying ideas by mimicking the actions or peculiarities of the things referred to. Verbal language also, in its first stage, is a mode of suggesting objects or acts by imitating the sounds which the objects make, or with which the acts are accompanied. Originally these two languages were used simultaneously. It needs but to watch the gesticulations with which the savage accompanies his speech—to see a Bushman dramatizing before an audience his mode of catching game—or to note the extreme paucity of words in primitive vocabularies; to infer that in the beginning, attitudes, gestures, and sounds, were all combined to

produce as good a *likeness* as possible of the things, animals, persons, or events described; and that as the sounds came to be understood by themselves the gestures fell into disuse: leaving traces, however, in the manners of the more excitable civilized races. But be this as it may, it suffices simply to observe, how many of the words current among barbarous peoples are like the sounds appertaining to the things signified; how many of our own oldest and simplest words have the same peculiarity; how children habitually invent imitative words; and how the sign-language spontaneously formed by deaf mutes is based on imitative actions—to be convinced that the notion of *likeness* is that from which the nomenclature of objects takes its rise. Were there space we might go on to point out how this law of likeness is traceable, not only in the origin but in the development of language; how in primitive tongues the plural is made by a duplication of the singular, which is a multiplication of the word to make it *like* the multiplicity of the things; how the use of metaphor—that prolific source of new words—is a suggesting of ideas which are *like* the ideas to be conveyed in some respect or other; and how, in the copious use of simile, fable, and allegory among uncivilized races, we see that complex conceptions which there is no direct language for, are rendered, by presenting known conceptions more or less *like* them.

This view is confirmed, and the predominance of this notion of likeness in primitive thought further illustrated, by the fact that our system of presenting ideas to the eye originated after the same fashion. Writing and printing have descended from picture-language. The earliest mode of permanently registering a fact was by depicting it on a skin and afterwards on a wall; that is—by exhibiting something as *like* to the thing to be remembered as it could be made. Gradually, as the practice grew habitual and extensive, the most frequently repeated forms became fixed, and pre-

sently abbreviated; and, passing through the hieroglyphic and ideographic phases, the symbols lost all apparent relation to the things signified: just as the majority of our spoken words have done.

Observe, again, that the same thing is true respecting the genesis of reasoning. The *likeness* which is perceived to exist between cases, is the essence of all early reasoning and of much of our present reasoning. The savage, having by experience discovered a relation between a certain object and a certain act, infers that the *like* relation will be found in future. And the expressions we use in our arguments—"analogy implies," "the cases are not *parallel*," "by *parity* of reasoning," "there is no *similarity*,"—show how constantly the idea of likeness underlies our ratiocinative processes. Still more clearly will this be seen on recognizing the fact that there is a close connexion between reasoning and classification; that the two have a common root; and that neither can go on without the other. For on the one hand, it is a familiar truth that the attributing to a body in consequence of some of its properties, all those other properties in virtue of which it is referred to a particular class, is an act of inference. And, on the other hand, the forming of a generalization is the putting together in one class, all those cases which present like relations; while the drawing a deduction is essentially the perception that a particular case belongs to a certain class of cases previously generalized. So that as classification is a grouping together of *like things*; reasoning is a grouping together of *like relations* among things. Add to which, that while the perfection gradually achieved in classification consists in the formation of groups of *objects* which are *completely alike*; the perfection gradually achieved in reasoning consists in the formation of groups of *cases* which are *completely alike*.

Once more we may contemplate this dominant idea of likeness as exhibited in art. All art, civilized as well as savage, consists almost wholly in the making of

objects *like* other objects; either as found in Nature, or as produced by previous art. If we trace back the varied art-products now existing, we find that at each stage the divergence from previous patterns is but small when compared with the agreement; and in the earliest art the persistency of imitation is yet more conspicuous. The old forms and ornaments and symbols were held sacred, and perpetually copied. Indeed, the strong imitative tendency notoriously displayed by the lowest human races—often seeming to be half automatic, ensures among them a constant reproduction of likenesses of things, forms, signs, sounds, actions and whatever else is imitable; and we may even suspect that this aboriginal peculiarity is in some way connected with the culture and development of this general conception, which we have found so deep and widespread in its applications.

And now let us go on to consider how, by a further unfolding of this same fundamental notion, there is a gradual formation of the first germs of science. This idea of likeness which underlies classification, nomenclature, language spoken and written, reasoning, and art; and which plays so important a part because all acts of intelligence are made possible only by distinguishing among surrounding things, or grouping them into like and unlike;—this idea we shall find to be the one of which science is the especial product. Already during the stage we have been describing, there has existed *qualitative* prevision in respect to the commoner phenomena with which savage life is familiar; and we have now to inquire how the elements of *quantitative* prevision are evolved. We shall find that they originate by the perfecting of this same idea of likeness—that they have their rise in that conception of *complete likeness* which, as we have seen, necessarily results from the continued process of classification.

For when the process of classification has been carried as far as it is possible for the uncivilized to carry it—when the

animal kingdom has been grouped not merely into quadrupeds, birds, fishes, and insects, but each of these divided into kinds—when there come to be classes, in each of which the members differ only as individuals, and not specifically; it is clear that there must frequently occur an observation of objects which differ so little as to be indistinguishable. Among several creatures which the savage has killed and carried home, it must often happen that some one, which he wished to identify, is so exactly like another that he cannot tell which is which. Thus, then, there originates the notion of *equality*. The things which among ourselves are called *equal*—whether lines, angles, weights, temperatures, sounds or colours—are things which produce in us sensations which cannot be distinguished from each other. It is true that we now apply the word *equal* chiefly to the separate traits or relations which objects exhibit, and not to those combinations of them constituting our conceptions of the objects; but this limitation of the idea has evidently arisen by analysis. That the notion of equality originated as alleged, will, we think, become obvious on remembering that as there were no artificial objects from which it could have been abstracted, it must have been abstracted from natural objects; and that the various families of the animal kingdom chiefly furnish those natural objects which display the requisite exactitude of likeness.

The experiences out of which this general idea of equality is evolved, give birth at the same time to a more complex idea of equality; or, rather, the process just described generates an idea of equality which further experience separates into two ideas—*equality of things* and *equality of relations*. While organic forms occasionally exhibit this perfection of likeness out of which the notion of simple equality arises, they more frequently exhibit only that kind of likeness which we call *similarity*; and which is really compound equality. For the similarity of two creatures of the same

species but of different sizes, is of the same nature as the similarity of two geometrical figures. In either case, any two parts of the one bear the same ratio to one another, as the homologous parts of the other. Given, in a species, the proportions found to exist among the bones, and we may, and zoologists do, predict from any one, the dimensions of the rest; just as, when knowing the proportions subsisting among the parts of a geometrical figure, we may, from the length of one, calculate the others. And if, in the case of similar geometrical figures, the similarity can be established only by proving exactness of proportion among the homologous parts—if we express this relation between two parts in the one, and the corresponding parts in the other, by the formula A is to B as a is to b ; if we otherwise write this, A to $B :: a$ to b ; if, consequently, the fact we prove is that the relation of A to B equals the relation of a to b ; then it is manifest that the fundamental conception of similarity is *equality of relations*. With this explanation we shall be understood when we say that the notion of equality of relations is the basis of all exact reasoning. Already it has been shown that reasoning in general is a recognition of *likeness* of relations; and here we further find that while the notion of likeness of things ultimately evolves the idea of simple equality, the notion of likeness of relations evolves the idea of equality of relations: of which the one is the concrete germ of exact science, while the other is its abstract germ. Those who cannot understand how the recognition of similarity in creatures of the same kind, can have any alliance with reasoning, will get over the difficulty on remembering that the phenomena among which equality of relations is thus perceived, are phenomena of the same order and are present to the senses at the same time; while those among which developed reason perceives relations, are generally neither of the same order, nor simultaneously present. And if, further, they will call to mind how Cuvier and Owen,

from a single part of a creature, as a tooth, construct the rest by a process of reasoning based on this equality of relations, they will see that the two things are intimately connected, remote as they at first seem. But we anticipate. What it concerns us here to observe is, that from familiarity with organic forms there simultaneously arose the ideas of *simple equality*, and *equality of relations*.

At the same time, too, and out of the same mental processes, came the first distinct ideas of *number*. In the earliest stages, the presentation of several like objects produced merely an indefinite conception of multiplicity; as it still does among Australians, and Bushmen, and Damaras, when the number presented exceeds three or four. With such a fact before us we may safely infer that the first clear numerical conception was that of duality as contrasted with unity. And this notion of duality must necessarily have grown up side by side with those of likeness and equality; seeing that it is impossible to recognize the likeness of two things without also perceiving that there are two. From the very beginning the conception of number must have been, as it is still, associated with likeness or equality of the things numbered; and for the purposes of calculation, an ideal equality of the things is assumed. Before any *absolutely true* numerical results can be reached, it is requisite that the units be *absolutely equal*. The only way in which we can establish a numerical relationship between things that do not yield us like impressions, is to divide them into parts that *do* yield us like impressions. Two unlike magnitudes of extension, force, time, weight, or what not, can have their relative amounts estimated, only by means of some small unit that is contained many times in both; and even if we finally write down the greater one as a unit and the other as a fraction of it, we state, in the denominator of the fraction, the number of parts into which the unit must be divided to be comparable with the fraction. It is, indeed, true, that by a modern process

of abstraction, we occasionally apply numbers to unequal units, as the furniture at a sale or the various animals on a farm, simply as so many separate entities; but no exact quantitative result can be brought out by calculation with units of this order. And, indeed, it is the distinctive peculiarity of the calculus in general, that it proceeds on the hypothesis of that absolute equality of its abstract units, which no real units possess, and that the exactness of its results holds only in virtue of this hypothesis. The first ideas of number must necessarily then have been derived from like or equal magnitudes as seen chiefly in organic objects; and as the like magnitudes most frequently observed were magnitudes of extension, it follows that geometry and arithmetic had a simultaneous origin.

Not only are the first distinct ideas of number co-ordinate with ideas of likeness and equality, but the first efforts at numeration display the same relationship. On reading accounts of savage tribes, we find that the method of counting by the fingers, still followed by many children, is the aboriginal method. Neglecting the several cases in which the ability to enumerate does not reach even to the number of fingers on one hand, there are many cases in which it does not extend beyond ten—the limit of the simple finger notation. The fact that in so many instances, remote, and seemingly unrelated nations, have adopted *ten* as their basic number; together with the fact that in the remaining instances the basic number is either *five* (the fingers of one hand) or *twenty* (the fingers and toes); of themselves show that the fingers were the original units of numeration. The still surviving use of the word *digit*, as the general name for a figure in arithmetic, is significant; and it is even said that our word *ten* (Sax. *tyn*; Dutch, *tien*; German, *zehn*) means in its primitive expanded form *two hands*. So that, originally, to say there were ten things, was to say there were two hands of them. From all which evidence it is

tolerably clear that the earliest mode of conveying the idea of a number of things, was by holding up as many fingers as there were things; that is, by using a symbol which was *equal*, in respect of multiplicity, to the group symbolized. For which inference there is, indeed, strong confirmation in the statement that our own soldiers spontaneously adopted this device in their dealings with the Turks during the Crimean War. And here it should be remarked that in this re-combination of the notion of equality with that of multiplicity, by which the first steps in numeration are effected, we may see one of the earliest of those inosculation between the diverging branches of science, which are afterwards of perpetual occurrence.

As this observation suggests, it will be well, before tracing the mode in which exact science emerges from the inexact judgments of the senses, and showing the non-serial evolution of its divisions, to note the non-serial character of those preliminary processes of which all after development is a continuation. On reconsidering them it will be seen that not only are they divergent branches from a common root, not only are they simultaneous in their growth; but that they are mutual aids; and that none can advance without the rest. That progress of classification for which the unfolding of the perceptions paves the way, is impossible without a corresponding progress in language, by which greater varieties of objects are thinkable and expressible. On the one hand classification cannot be carried far without names by which to designate the classes; and on the other hand language cannot be made faster than things are classified. Again, the multiplication of classes and the consequent narrowing of each class, itself involves a greater likeness among the things classed together; and the consequent approach towards the notion of complete likeness itself allows classification to be carried higher. Moreover, classification necessarily advances *pari passu* with rationality—the classification

of things with the classification of *relations*. For things that belong to the same class are, by implication, things of which the properties and modes of behaviour—the co-existences and sequences—are more or less the same; and the recognition of this sameness of co-existences and sequences is reasoning. Whence it follows that the advance of classification is necessarily proportionate to the advance of generalizations. Yet further, the notion of *likeness*, both in things and relations, simultaneously evolves by one process of culture the ideas of *equality* of things and *equality* of relations; which are the respective bases of exact concrete reasoning and exact abstract reasoning—Mathematics and Logic. And once more, this idea of equality, in the very process of being formed, necessarily gives origin to two series of relations—those of magnitude and those of number; from which arise geometry and the calculus. Thus the process throughout is one of perpetual subdivision and perpetual intercommunication of the divisions. From the very first there has been that *consensus* of different kinds of knowledge, answering to the *consensus* of the intellectual faculties, which, as already said, must exist among the sciences.

Let us now go on to observe how, out of the notions of *equality* and *number*, as arrived at in the manner described, there gradually arose the elements of quantitative prevision.

Equality, once having come to be definitely conceived, was recognizable among other phenomena than those of magnitude. Being predicable of all things producing indistinguishable impressions, there naturally grew up ideas of equality in weights, sounds, colours, &c.; and, indeed, it can scarcely be doubted that the occasional experience of equal weights, sounds, and colours, had a share in developing the abstract conception of equality—that the ideas of equality in sizes, relations, forces, resistances, and sensible properties in general, were evolved during the same

stage of mental development. But however this may be, it is clear that as fast as the notion of equality gained definiteness, so fast did that lowest kind of quantitative prevision which is achieved without any instrumental aid, become possible. The ability to estimate, however roughly, the amount of a foreseen result, implies the conception that it will be *equal* to a certain imagined quantity; and the correctness of the estimate will manifestly depend on the precision which the perceptions of sensible equality have reached. A savage with a piece of stone in his hand, and another piece lying before him of greater bulk but of the same kind (sameness of kind being inferred from the *equality* of the two in colour and texture), knows about what effort he must put forth to raise this other piece; and he judges accurately in proportion to the accuracy with which he perceives that the one is twice, three times, four times, &c., as large as the other; that is—in proportion to the precision of his ideas of equality and number. And here let us not omit to notice that even in these vaguest of quantitative previsions, the conception of *equality of relations* is also involved. For it is only in virtue of an undefined consciousness that the relation between bulk and weight in one stone is *equal* to the relation between bulk and weight in the other, that even the roughest approximation can be made.

But how came the transition from those uncertain perceptions of equality which the unaided senses give, to the certain ones with which science deals? It came by placing the things compared in juxtaposition. Equality being asserted of things which give us indistinguishable impressions, and no distinct comparison of impressions being possible unless they occur in immediate succession, it results that exactness of equality is ascertainable in proportion to the closeness of the compared things. Hence the fact that when we wish to judge of two shades of colour whether they are alike or not, we place them side by side; hence the fact that

we cannot, with any precision, say which of two allied sounds is the louder, or the higher in pitch, unless we hear the one immediately after the other; hence the fact that to estimate the ratio of weights, we take one in each hand, that we may compare their pressures by rapidly alternating in thought from the one to the other; hence the fact, that in a piece of music, we can continue to make equal beats when the first beat has been given, but cannot ensure commencing with the same length of beat on a future occasion; and hence, lastly, the fact, that of all magnitudes, those of *linear extension* are those of which the equality is most precisely ascertainable, and those to which, by consequence, all others have to be reduced. For it is the peculiarity of linear extension that it alone allows its magnitudes to be placed in *absolute* juxtaposition, or, rather, in coincident position; it alone can test the equality of two magnitudes by observing whether they will coalesce, as two equal mathematical lines do, when placed between the same points; it alone can test *equality* by trying whether it will become *identity*. Hence, then, the fact, that all exact science is reducible, by an ultimate analysis, to results measured in equal units of linear extension.

Still it remains to be noticed in what manner this determination of equality by comparison of linear magnitudes originated. Once more may we perceive that surrounding natural objects supplied the needful lessons. From the beginning there must have been a constant experience of like things placed side by side—men standing and walking together; animals from the same herd; fish from the same shoal. And the ceaseless repetition of these experiences could not fail to suggest the observation, that the nearer together any objects were, the more visible became any inequality between them. Hence the obvious device of putting in apposition, things of which it was desired to ascertain the relative magnitudes. Hence the idea of *measure*. And here we suddenly come

upon a group of facts which afford a solid basis to the remainder of our argument; while they also furnish strong evidence in support of the foregoing speculations. Those who look sceptically on this attempted rehabilitation of early mental development, and who think that the derivation of so many primary notions from organic forms is somewhat strained, will perhaps see more probability in the hypotheses which have been ventured, on discovering that all measures of *extension* and *force* originated from the lengths and weights of organic bodies, and all measures of *time* from the periodic phenomena of either organic or inorganic bodies.

Thus, among linear measures, the cubit of the Hebrews was the *length of the forearm* from the elbow to the end of the middle finger; and the smaller scriptural dimensions are expressed in *hand-breadths* and *spans*. The Egyptian cubit, which was similarly derived, was divided into digits, which were *finger-breadths*; and each finger breadth was more definitely expressed as being equal to four *grains of barley* placed breadth-wise. Other ancient measures were the *orgyia* or *stretch of the arms*, the *pace*, and the *palm*. So persistent has been the use of these natural units of length in the East, that even now some Arabs mete out cloth by the forearm. So, too, is it with European measures. The *foot* prevails as a dimension throughout Europe, and has done so since the time of the Romans, by whom, also, it was used: its lengths in different places varying not much more than men's feet vary. The heights of horses are still expressed in *hands*. The inch is the length of the terminal joint of the *thumb*; as is clearly shown in France, where *pouce* means both thumb and inch. Then we have the inch divided into three *barley-corns*. So completely, indeed, have these organic dimensions served as the substrata of mensuration, that it is only by means of them that we can form any estimate of some of the ancient distances. For example, the

length of a degree on the Earth's surface, as determined by the Arabian astronomers shortly after the death of Haroun-al-Raschid, was fifty-six of their miles. We know nothing of their mile further than that it was 4,000 cubits; and whether these were sacred cubits or common cubits, would remain doubtful, but that the length of the cubit is given as twenty-seven inches, and each inch defined as the thickness of six barley-grains. Thus one of the earliest measurements of a degree comes down to us in barley-grains. Not only did organic lengths furnish those approximate measures which satisfied men's needs in ruder ages, but they furnished also the standard measures required in later times. One instance occurs in our own history. To remedy the irregularities then prevailing, Henry I. commanded that the ulna, or ancient ell, which answers to the modern yard, should be made of the exact length of *his own arm*.

Measures of weight had a kindred derivation. Seeds seem commonly to have supplied the units. The original of the carat used for weighing in India is a *small bean*. Our own systems, both troy and avoirdupois, are derived primarily from wheat corns. Our smallest weight, the grain, is a *grain of wheat*. This is not a speculation: it is an historically registered fact. Henry III. enacted that an ounce should be the weight of 640 dry grains of wheat from the middle of the ear. And as all the other weights are multiples or sub-multiples of this, it follows that the grain of wheat is the basis of our scale. So natural is it to use organic bodies as weights, before artificial weights have been established, or where they are not to be had, that in some of the remoter parts of Ireland the people are said to be in the habit, even now, of putting a man into the scales to serve as a measure for heavy commodities.

Similarly with time. Astronomical periodicity, and the periodicity of animal and vegetal life, are simultaneously used

in the first stages of progress for estimating epochs. The simplest unit of time, the day, nature supplies ready made. The next simplest period, the month or month, is also thrust upon men's notice by the conspicuous changes constituting a lunation. For larger divisions than these, the phenomena of the seasons, and the chief events from time to time occurring, have been used by early and uncivilized races. Among the Egyptians the rising of the Nile served as a mark. The New Zealanders were found to begin their year from the reappearance of the Pleiades above the sea. One of the uses ascribed to birds, by the Greeks, was to indicate the seasons by their migrations. Barrow describes the aboriginal Hottentot as expressing dates by the number of moons before or after the ripening of one of his chief articles of food. He further states that the Kaffir chronology is kept by the moon, and is registered by notches on sticks the death of a favourite chief, or the gaining of a victory, serving for a new era. By which last fact, we are at once reminded that in early history, events are commonly recorded as occurring in certain reigns, and in certain years of certain reigns: a proceeding which made a king's reign a rude measure of duration. And, as further illustrating the tendency to divide time by natural phenomena and natural events, it may be noticed that even by our own peasantry the definite divisions of months and years are but little used; and that they habitually refer to occurrences as "before sheep-shearing," or "after harvest," or "about the time when the squire died." It is manifest, therefore, that the approximately equal periods perceived in Nature gave the first units of measure for time; as did Nature's approximately equal lengths and weights give the first units of measure for space and force.

It remains only to observe, that measures of value were similarly derived. Barter, in one form or other, is found among all but the very lowest human races. It is obviously based upon the

notion of *equality of worth*. And as it gradually merges into trade by the introduction of some kind of currency, we find that the *measures of worth*, constituting this currency, are organic bodies: in some cases *cowries*, in others *coconuts*, in others *cattle*, in others *pigs*; among the American Indians peltry or *skins*, and in Iceland *dried fish*.

Notions of exact equality and of measure having been reached, there arose definite ideas of magnitudes as being multiples one of another; whence the practice of measurement by direct apposition of a measure. The determination of linear extensions by this process can scarcely be called science, though it is a step towards it; but the determination of lengths of time by an analogous process may be considered as one of the earliest samples of quantitative prevision. For when it is first ascertained that the moon completes the cycle of her changes in about thirty days—a fact known to most uncivilized tribes that can count beyond the number of their fingers—it is manifest that it becomes possible to say in what number of days any specified phase of the moon will recur; and it is also manifest that this prevision is effected by an apposition of two times, after the same manner that linear space is measured by the apposition of two lines. For to express the moon's period in days, is to say how many of these units of measure are contained in the period to be measured—is to ascertain the distance between two points in time by means of a *scale of days*, just as we ascertain the distance between two points in space by a scale of feet or inches; and in each case the scale coincides with the thing measured—mentally in the one, visibly in the other. So that in this simplest, and perhaps earliest case of quantitative prevision, the phenomena are not only thrust daily upon men's notice, but Nature is, as it were, perpetually repeating that process of measurement by observing which the prevision is effected.

This fact, that in very early stages of

social progress it is known that the moon goes through her changes in nearly thirty days, and that in rather more than twelve moons the seasons return—this fact that chronological astronomy assumes a certain scientific character even before geometry does; while it is partly due to the circumstance that the astronomical divisions, day, month, and year, are ready made for us, is partly due to the further circumstances that agricultural and other operations were at first regulated astronomically, and that from the supposed divine nature of the heavenly bodies their motions determined the periodical religious festivals. As instances of the one we have the observation of the Egyptians, that the rising of the Nile corresponded with the heliacal rising of Sirius: the directions given by Hesiod for reaping and ploughing, according to the positions of the Pleiades; and his maxim that “fifty days after the turning of the sun is a seasonable time for beginning a voyage.” As instances of the other, we have the naming of the days after the sun, moon, and planets; the early attempts among Eastern nations to regulate the calendar so that the gods might not be offended by the displacement of their sacrifices; and the fixing of the great annual festival of the Peruvians by the position of the sun. In all which facts we see that, at first, science was simply an appliance of religion and industry.

After the discoveries that a lunation occupies nearly thirty days, and that some twelve lunations occupy a year—discoveries which we may infer were the earliest, from the fact that existing uncivilized races have made them—we come to the first known astronomical records, which are those of eclipses. The Chaldeans were able to predict these. “These they did, probably,” says Dr. Whewell in his useful history, from which most of the materials we are about to use will be drawn, “by means of their cycle of 233 months, or about eighteen years; for, at the end of this time, the eclipses of the moon begin to return, at

the same intervals and in the same order as at the beginning." Now this method of calculating eclipses by means of a recurring cycle,—the *Saros* as they called it—is a more complex case of prevision by means of coincidence of measures. For by what observations must the Chaldeans have discovered this cycle? Obviously, as Delambre infers, by inspecting their registers; by comparing the successive intervals; by finding that some of the intervals were alike; by seeing that these equal intervals were eighteen years apart; by discovering that *all* the intervals that were eighteen years apart were equal; by ascertaining that the intervals formed a series which repeated itself, so that if one of the cycles of intervals were superposed on another the divisions would fit. And this being once perceived, it became possible to use the cycle as a scale of time by which to measure out future periods of recurrence. Seeing thus that the process of so predicting eclipses, is in essence the same as that of predicting the moon's monthly changes by observing the number of days after which they repeat—seeing that the two differ only in the extent and irregularity of the intervals; it is not difficult to understand how such an amount of knowledge should so early have been reached. And we shall be the less surprised on remembering that the only things involved in these previsions were *time* and *number*; and that the time was in a manner self-numbered.

Still, the ability to predict events recurring only after so long a period as eighteen years, implies a considerable advance in civilization—a considerable development of general knowledge; and we have now to inquire what progress in other sciences accompanied, and was necessary to, these astronomical previsions. In the first place, there must have been a tolerably efficient system of calculation. Mere finger counting, mere head-reckoning, even with the aid of a decimal notation, could not have sufficed for numbering the days in a year; much

less the years, months, and days between eclipses. Consequently there must have been a mode of registering numbers; probably even a system of numerals. The earliest numerical records, if we may judge by the practices of the less civilized races now existing, were probably kept by notches cut on sticks, or strokes marked on walls; much as public-house scores are kept now. And there is reason to think that the first numerals used were simply groups of straight strokes, as some of the still-extant Roman ones are; leading us to suspect that these groups of strokes were used to represent groups of fingers, as the groups of fingers had been used to represent groups of objects—a supposition harmonizing with the aboriginal practice of picture writing. Be this so or not, however, it is manifest that before the Chaldeans discovered their *Saros*, they must have had both a set of written symbols serving for an extensive numeration, and a familiarity with the simpler rules of arithmetic.

Not only must abstract mathematics have made some progress, but concrete mathematics also. It is scarcely possible that the buildings belonging to this era should have been laid out and erected without any knowledge of geometry. At any rate, there must have existed that elementary geometry which deals with direct measurement—with the apposition of lines; and it seems that only after the discovery of those simple proceedings, by which right angles are drawn, and relative positions fixed, could so regular an architecture be executed. In the case of the other division of concrete mathematics—mechanics, we have definite evidence of progress. We know that the lever and the inclined plane were employed during this period: implying that there was a qualitative prevision of their effects, if not a quantitative one. But we know more. We read of weights in the earliest records; and we find weights in ruins of the highest antiquity. Weights imply scales, of which we have also mention; and scales involve the primary theorem of mechanics in its

least complicated form—involve not a qualitative but a quantitative prevision of mechanical effects. And here we may notice how mechanics, in common with the other exact sciences, took its rise from the simplest application of the idea of *equality*. For the mechanical proposition which the scales involve, is, that if a lever with *equal* arms, have *equal* weights suspended from them, the weights will remain at *equal* altitudes. And we may further notice how, in this first step of rational mechanics, we see illustrated the truth awhile since named, that as magnitudes of linear extension are the only ones of which the equality is exactly ascertainable, the equalities of other magnitudes have at the outset to be determined by means of them. For the equality of the weights which balance each other in scales, depends on the equality of the arms: we can know that the weights are equal only by proving that the arms are equal. And when by this means we have obtained a system of weights,—a set of equal units of force and definite multiples of them, then does a science of mechanics become possible. Whence, indeed, it follows, that rational mechanics could not possibly have any other starting-point than the scales.

Let us further remember that during this same period there was some knowledge of chemistry. Sundry of the arts which we know to have been carried on, were made possible only by a generalized experience of the modes in which certain bodies affect each other under special conditions. In metallurgy, which was extensively practised, this is abundantly illustrated. And we even have evidence that in some cases the knowledge possessed was, in a sense, quantitative. For, as we find by analysis that the hard alloy of which the Egyptians made their cutting tools, was composed of copper and tin in fixed proportions, there must have been an established prevision that such an alloy was to be obtained only by mixing them in these proportions. It is true, this was but a simple empirical generalization; but so was the generali-

zation respecting the recurrence of eclipses; so are the first generalizations of every science.

Respecting the simultaneous advance of the sciences during this early epoch, it remains to point out that even the most complex of them must have made some progress. For under what conditions only were the foregoing developments possible? The conditions furnished by an established and organized social system. A long continued registry of eclipses; the building of palaces; the use of scales; the practice of metallurgy

alike imply a settled and populous nation. The existence of such a nation not only presupposes laws and some administration of justice, which we know existed, but it presupposes successful laws—laws conforming in some degree to the conditions of social stability—laws enacted because it was found that the actions forbidden by them were dangerous to the State. We do not by any means say that all, or even the greater part, of the laws were of this nature; but we do say, that the fundamental ones were. It cannot be denied that the laws affecting life and property were such. It cannot be denied that, however little these were enforced between class and class, they were to a considerable extent enforced between members of the same class. It can scarcely be questioned, that the administration of them between members of the same class was seen by rulers to be necessary for keeping society together. But supposition aside, it is clear that the habitual recognition of these claims in their laws, implied some prevision of social phenomena. That same idea of *equality*, which, as we have seen, underlies other science, underlies also morals and sociology. The conception of justice, which is the primary one in morals; and the administration of justice, which is the vital condition to social existence; are impossible without the recognition of a certain likeness in men's claims, in virtue of their common humanity. *Equity* literally means *equality*; and if it be admitted that there

were even the vaguest ideas of equity in these primitive eras, it must be admitted that there was some appreciation of the equalness of men's liberties to pursue the objects of life—some appreciation, therefore, of the essential principle of national equilibrium.

Thus in this initial stage of the positive sciences, before geometry had yet done more than evolve a few empirical rules—before mechanics had passed beyond its first theorem before astronomy had advanced from its merely chronological phase into the geometrical; the most involved of the sciences had reached a certain degree of development—a development without which no progress in other sciences was possible.

Only noting as we pass, how, thus early, we may see that the progress of exact science was not only towards an increasing number of previsions, but towards previsions more accurately quantitative—how, in astronomy, the recurring period of the moon's notions was by and by more correctly ascertained to be two hundred and thirty five lunations; how Callippus further corrected this Metonic cycle, by leaving out a day at the end of every seventy six years; and how these successive advances implied a longer continued registry of observations, and the co ordination of a greater number of facts; let us go on to inquire how geometrical astronomy took its rise. The first astronomical instrument was the gnomon. This was not only early in use in the East, but it was found among the Mexicans; the sole astronomical observations of the Peruvians were made by it; and we read that 1100 B.C., the Chinese observed that, at a certain place, the length of the sun's shadow, at the summer solstice, was to the height of the gnomon, as one and a half to eight. Here again it is observable, both that the instrument is found ready made, and that Nature is perpetually performing the process of measurement. Any fixed, erect object—a column, a pole, the angle of a building—serves for a gnomon; and it needs but to notice the

changing position of the shadow it daily throws, to make the first step in geometrical astronomy. How small this first step was, may be seen in the fact that the only things ascertained at the outset were the periods of the summer and winter solstices, which corresponded with the least and greatest lengths of the mid-day shadow; and to fix which, it was needful merely to mark the point to which each day's shadow reached. And now let it not be overlooked that in the observing at what time during the next year this extreme limit of the shadow was again reached, and in the inference that the sun had then arrived at the same turning point in his annual course, we have one of the simplest instances of that combined use of *equal magnitudes* and *equal relations*, by which all exact science, all quantitative prevision, is reached. For the relation observed was between the length of the gnomon's shadow and the sun's position in the heavens; and the inference drawn was that when, next year, the extremity of the shadow came to the same point, he occupied the same place. That is, the ideas involved were, the equality of the shadows, and the equality of the relations between shadow and sun in successive years. As in the case of the scales, the equality of relations here recognized is of the simplest order. It is not as those habitually dealt with in the higher kinds of scientific reasoning, which answer to the general type—the relation between two and three equals the relation between six and nine; but it follows the type—the relation between two and three equals the relation between two and three: it is a case of not simply *equal* relations, but *coinciding* relations. And here, indeed, we may see beautifully illustrated how the idea of equal relations takes its rise after the same manner that that of equal magnitudes does. As already shown, the idea of equal magnitudes arose from the observed coincidence of two lengths placed together; and in this case we have not only two coincident lengths of shadows, but,

two coincident relations between sun and shadows.

From the use of the gnomon there naturally grew up the conception of angular measurements; and with the advance of geometrical conceptions came the hemisphere of Berosus, the equinoctial armil, the solstitial armil, and the quadrant of Ptolemy -- all of them employing shadows as indices of the sun's position, but in combination with angular divisions. It is out of the question for us here to trace these details of progress. It must suffice to remark that in all of them we may see that notion of equality of relations of a more complex kind, which is best illustrated in the astrolabe, an instrument which consisted "of circular rims, moveable one within the other, or about poles, and contained circles which were to be brought into the position of the ecliptic, and of a plane passing through the sun and the poles of the ecliptic" -- an instrument, therefore, which represented, as by a model, the relative positions of certain imaginary lines and planes in the heavens; which was adjusted by putting these representative lines and planes into parallelism with the celestial ones; and which depended for its use on the perception that the relations among these representative lines and planes were *equal* to the relations among those represented. We might go on to point out how the conception of the heavens as a revolving hollow sphere, the explanation of the moon's phases, and indeed all the successive steps taken, involved this same mental process. But we must content ourselves with referring to the theory of eccentrics and epicycles, as a further marked illustration of it. As first suggested, and as proved by Hipparchus to afford an explanation of the leading irregularities in the celestial motions, this theory involved the perception that the progressions, retrogressions, and variations of velocity seen in the heavenly bodies, might be reconciled with their assumed uniform movements in circles, by supposing that the earth

was not in the centre of their orbits; or by supposing that they revolved in circles whose centres revolved round the earth; or by both. The discovery that this would account for the appearances, was the discovery that in **certain** geometrical diagrams the relations were such, that the uniform motion of points along curves conditioned in specified ways, would, when looked at from a particular position, present analogous irregularities; and the calculations of Hipparchus involved the belief that the relations subsisting among these geometrical curves were *equal* to the relations subsisting among the celestial orbits.

Leaving here these details of astronomical progress, and the philosophy of it, let us observe how the relatively concrete science of geometrical astronomy, having been thus far helped forward by the development of geometry in general, reacted upon geometry, caused it also to advance, and was again assisted by it. Hipparchus, before making his solar and lunar tables, had to discover rules for calculating the relations between the sides and angles of triangles -- *trigonometry*, a subdivision of pure mathematics. Further, the reduction of the doctrine of the sphere to a quantitative form needed for astronomical purposes, required the formation of a *spherical trigonometry*, which was also achieved by Hipparchus. Thus both plane and spherical trigonometry, which are parts of the highly abstract and simple science of extension, remained undeveloped until the less abstract and more complex science of the celestial motions had need of them. The fact admitted by M. Comte, that since Descartes the progress of the abstract division of mathematics has been determined by that of the concrete division, is paralleled by the still more significant fact that even thus early the progress of mathematics was determined by that of astronomy. And here, indeed, we see exemplified the truth, which the subsequent history of science frequently illustrates, that before any more abstract division makes a further advance, some

more concrete division suggests the necessity for that advance—presents the new order of questions to be solved. Before astronomy put before Hipparchus the problem of solar tables, there was nothing to raise the question of the relations between lines and angles: the subject-matter of trigonometry had not been conceived.

Just incidentally noticing the circumstance that the epoch we are describing witnessed the evolution of algebra, a comparatively abstract division of mathematics, by the union of its less abstract divisions, geometry and arithmetic (a fact proved by the earliest extant samples of algebra, which are half algebraic, half geometric), we go on to observe that during the era in which mathematics and astronomy were thus advancing, rational mechanics made its second step; and something was done towards giving a quantitative form to hydrostatics, optics, and acoustics. In each case we shall see how the idea of equality underlies all quantitative prevision; and in what simple forms this idea is first applied.

As already shown, the first theorem established in mechanics was, that equal weights suspended from a lever with equal arms would remain in equilibrium. Archimedes discovered that a lever with unequal arms was in equilibrium when one weight was to its arm as the other arm to its weight; that is—when the numerical relation between one weight and its arm was *equal* to the numerical relation between the other arm and its weight.

The first advance made in hydrostatics, which we also owe to Archimedes, was the discovery that fluids press *equally* in all directions; and from this followed the solution of the problem of floating bodies: namely, that they are in equilibrium when the upward and downward pressures are *equal*.

In optics, again, the Greeks found that the angle of incidence is *equal* to the angle of reflection; and their knowledge reached no further than to such

simple deductions from this as their geometry sufficed for. In acoustics they ascertained the fact that three strings of *equal* lengths would yield the octave, fifth and fourth, when strained by weights having certain definite ratios; and they did not progress much beyond this. In the one of which cases we see geometry used in elucidation of the laws of light; and in the other, geometry and arithmetic made to measure certain phenomena of sound.

While sundry sciences had thus reached the first stages of quantitative prevision, others were progressing in qualitative prevision. It must suffice just to note that some small generalizations were made respecting evaporation, and heat, and electricity, and magnetism, which, empirical as they were, did not in that respect differ from the first generalizations of every science; that the Greek physicians had made advances in physiology and pathology, which, considering the great imperfection of our present knowledge, are by no means to be despised; that zoology had been so far systematized by Aristotle, as, to some extent, enabled him from the presence of certain organs, to predict the presence of others; that in Aristotle's *Politics*, is shown progress towards a scientific conception of social phenomena, and sundry previsions respecting them; and that in the state of the Greek societies, as well as in the writings of Greek philosophers, we may recognize both an increasing clearness in the conception of equity and some appreciation of the fact that social stability depends on the maintenance of equitable relations. Space permitting, we might dwell on the causes which retarded the development of some of the sciences, as, for example, chemistry; showing that relative complexity had nothing to do with it—that the oxidation of a piece of iron is a simpler phenomenon than the recurrence of eclipses, and the discovery of carbonic acid less difficult than that of the precession of the equinoxes. The relatively slow advance of chemical knowledge might

be shown to be due, partly to the fact that its phenomena were not daily thrust on men's notice as those of astronomy were; partly to the fact that Nature does not habitually supply the means, and suggest the modes of investigation, as in the sciences dealing with time, extension, and force; partly to the fact that the great majority of the materials with which chemistry deals, instead of being ready to hand, are made known only by the arts in their slow growth; and partly to the fact that even when known, their chemical properties are not self-exhibited, but have to be sought out by experiment.

Merely indicating these considerations, however, let us go on to contemplate the progress and mutual influence of the sciences in modern days; only parenthetically noticing how, on the revival of the scientific spirit, the successive stages achieved exhibit the dominance of the law hitherto traced—how the primary idea in dynamics, a uniform force, was defined by Galileo to be a force which generates *equal* velocities in *equal* successive times—how the uniform action of gravity was first experimentally determined by showing that the time elapsing before a body thrown up, stopped, was *equal* to the time it took to fall—how the first fact in compound motion which Galileo ascertained was, that a body projected horizontally, will describe *equal* horizontal spaces in *equal* times, compounded vertical spaces described which increase by equal increments in *equal* times—how his discovery respecting the pendulum was, that its oscillations occupy *equal* intervals of time whatever their lengths—how the law which he established that in any machine the weights that balance each other, are reciprocally as their virtual velocities implies that the relation of one set of weights to their velocities *equals* the relation of the other set of velocities to their weights;—and how thus his achievements consisted in showing the equalities of certain magnitudes and relations, whose equalities had not been previously recognized.

And now, but only now, physical astronomy became possible. The simple laws of force had been disentangled from those of friction and atmospheric resistance by which all their earthly manifestations are disguised. Progressing knowledge of *terrestrial physics* had given a due insight into these disturbing causes; and, by an effort of abstraction, it was perceived that all motion would be uniform and rectilinear unless interfered with by external forces. Geometry and mechanics having diverged from a common root in men's sensible experiences, and having, with occasional inosculations, been separately developed, the one partly in connexion with astronomy, the other solely by analyzing terrestrial movements, now join in the investigations of Newton to create a true theory of the celestial motions. And here, also, we have to notice the important fact that, in the very process of being brought jointly to bear upon astronomical problems, they are themselves raised to a higher phase of development. For it was in dealing with the questions raised by celestial dynamics that the then incipient infinitesimal calculus was unfolded by Newton and his Continental successors; and it was from inquiries into the mechanics of the solar system that the general theorems of mechanics contained in the *Principia*—many of them of purely terrestrial application—took their rise. Thus, as in the case of Hipparchus, the presentation of a new order of concrete facts to be analyzed, led to the discovery of new abstract facts; and these abstract facts then became instruments of access to endless groups of concrete facts previously beyond quantitative treatment.

Meanwhile, physics had been carrying further that progress without which, as just shown, rational mechanics could not be disentangled. In hydrostatics, Stevinus had extended and applied the discovery of Archimedes. Torricelli had proved atmospheric pressure, "by showing that this pressure sustained different liquids at heights inversely proportional

to their densities;" and Pascal "established the necessary diminution of this pressure at increasing heights in the atmosphere"; discoveries which in part reduced this branch of science to a quantitative form. Something had been done by Daniel Bernoulli towards the dynamics of fluids. The thermometer had been invented; and sundry small generalizations reached by it. Huyghens and Newton had made considerable progress in optics; Newton had approximately calculated the rate of transmission of sound; and the Continental mathematicians had ascertained some of the laws of sonorous vibrations. Magnetism and electricity had been considerably advanced by Gilbert. Chemistry had got as far as the mutual neutralization of acids and alkalies. And Leonardo da Vinci had advanced in geology to the conclusion that the deposition of animal remains in marine strata is the origin of fossils. Our present purpose does not require that we should give particulars. Here it only concerns us to illustrate the *consensus* subsisting in this stage of growth, and afterwards. Let us look at a few cases.

The theoretic law of the velocity of sound deduced by Newton from purely mechanical data, was found wrong by one-sixth. The error remained unaccounted for until the time of Laplace, who, suspecting that the heat disengaged by the compression of the undulating strata of the air, gave additional elasticity, and so produced the difference, made the needful calculations and found he was right. Thus acoustics was arrested until thermology overtook and aided it. When Boyle and Marriot had discovered the relation between the densities of gases and the pressures they are subject to; and when it thus became possible to calculate the rate of decreasing density in the upper parts of the atmosphere; it also became possible to make approximate tables of the atmospheric refraction of light. Thus optics, and with it astronomy, advanced with barology. After the discovery of atmospheric pressure

had led to the invention of the air-pump by Otto Guericke; and after it had become known that evaporation increases in rapidity as atmospheric pressure decreases; it became possible for Leslie, by evaporation in a vacuum, to produce the greatest cold known; and so to extend our knowledge of thermology by showing that there is no zero within reach of our researches. When Fourier had determined the laws of conduction of heat, and when the Earth's temperature had been found to increase below the surface one degree in every forty yards, there were data for inferring the past condition of our globe; the vast period it has taken to cool down to its present state; and the immense age of the solar system—a purely astronomical consideration. Chemistry having advanced sufficiently to supply the needful materials, and a physiological experiment having furnished the requisite hint, there came the discovery of galvanic electricity. Galvanism reacting on chemistry disclosed the metallic bases of the alkalies and earths, and inaugurated the electrochemical theory; in the hands of Oersted and Ampère it led to the laws of magnetic action; and by its aid Faraday has detected significant facts relative to the constitution of light. Brewster's discoveries respecting double refraction and dipolarization proved the essential truth of the classification of crystalline forms according to the number of axes, by showing that the molecular constitution depends on the axes. Now in these and in numerous other cases, the mutual influence of the sciences has been quite independent of any supposed hierarchical order. Often, too, their interactions are more complex than as thus instanced—involve more sciences than two. One illustration of this must suffice. We quote it in full from the *History of the Inductive Sciences*. In Book XI., chap. II., on "The Progress of the Electrical Theory," Dr. Whewell writes:—

Thus at that period, mathematics was behind experiment, and a problem was proposed, in which theoretical numerical results

were wanted for comparison with observation, but could not be accurately obtained; as was the case in astronomy also, till the time of the approximate solution of the problem of three bodies, and the consequent formation of the tables of the moon and planets, on the theory of universal gravitation. After some time, electrical theory was relieved from this reproach, mainly in consequence of the progress which astronomy had occasioned in pure mathematics. About 1801 there appeared in the *Bulletin des Sciences*, an exact solution of the problem of the distribution of electric fluid on a spheroid, obtained by Biot, by the application of the peculiar methods which Laplace had invented for the problem of the figure of the planets. And, in 1811, M. Poisson applied Laplace's artifices to the case of two spheres acting upon one another in contact, a case to which many of Coulomb's experiments were referrible; and the agreement of the results of theory and observation, thus extricated from Coulomb's numbers obtained above forty years previously, was very striking and convincing.

Not only do the sciences affect each other after this direct manner, but they affect each other indirectly. Where there is no dependence, there is yet analogy—*likeness of relations*; and the discovery of the relations subsisting among one set of phenomena, constantly suggests a search for similar relations among another set. Thus the established fact that the force of gravitation varies inversely as the square of the distance, being recognized as a necessary characteristic of all influences proceeding from a centre, raised the suspicion that heat and light follow the same law; which proved to be the case—a suspicion and a confirmation which were repeated in respect to the electric and magnetic forces. Thus, again, the discovery of the polarization of light led to experiments which ended in the discovery of the polarization of heat—a discovery that could never have been made without the antecedent one. Thus, too, the known refrangibility of light and heat lately produced the inquiry whether sound also is not refrangible; which on trial it turns out to be. In some cases, indeed, it is only by the aid of conceptions derived from one class of phenomena that hypotheses respecting other classes can be formed. The theory, at one time favoured, that evaporation is a

solution of water in air, assumed that the relation between water and air is *like* the relation between water and a dissolved solid; and could never have been conceived if relations like that between salt and water had not been previously known. Similarly the received theory of evaporation—that it is a diffusion of the particles of the evaporating fluid in virtue of their atomic repulsion—could not have been entertained without a foregoing experience of magnetic and electric repulsions. So complete in recent days has become this *consensus* among the sciences, caused either by the natural entanglement of their phenomena, or by analogies between the relations of their phenomena, that scarcely any considerable discovery concerning one order of facts now takes place, without shortly leading to discoveries concerning other orders.

To produce a complete conception of this process of scientific evolution it would be needful to go back to the beginning, and trace in detail the growth of classifications and nomenclatures; and to show how, as subsidiary to science, they have acted upon it while it has reacted upon them. We can only now remark that, on the one hand, classifications and nomenclatures have aided science by subdividing the subject-matter of research, and giving fixity and diffusion to the truths disclosed; and that on the other hand, they have caught from it that increasing quantitateness, and that progress from considerations touching single phenomena to considerations touching the relations among many phenomena, which we have been describing. Of this last influence a few illustrations must be given. In chemistry it is seen in the facts that the dividing of matter into the four elements was ostensibly based on the single property of weight, that the first truly chemical division into acid and alkaline bodies, grouped together bodies which had not simply one property in common but in which one property was constantly related to many others, and that the

classification now current, places together in the groups *supporters of combustion, metallic and non-metallic bases, acids, salts, &c.*, bodies which are often quite unlike in sensible qualities, but which are like in the majority of their *relations* to other bodies. In mineralogy again, the first classifications were based on differences in aspect, texture, and other physical attributes. Berzelius made two attempts at a classification based solely on chemical constitution. That now current recognizes, as far as possible, the *relations* between physical and chemical characters. In botany the earliest classes formed were *trees, shrubs, and herbs*: magnitude being the basis of distinction. Dioscorides divided vegetables into *aromatic, alimentary, medicinal, and vinous*: a division of chemical character. Casalpini classified them by the seeds and seed vessels, which he preferred because of the *relations* found to subsist between the character of the fructification and the general character of the other parts. While the "natural system" since developed, carrying out the doctrine of Linnaeus, that "the natural orders must be formed by attention not to one or two, but to *all* the parts of plants," bases its divisions on like peculiarities which are found to be *constantly related* to the greatest number of other like peculiarities. And similarly in zoology, the successive classifications, from having been originally determined by external and often subordinate characters not indicative of the essential nature, have been more and more determined by those internal and fundamental differences, which have uniform *relations* to the greatest number of other differences. Nor shall we be surprised at this analogy between the modes of progress of positive science and classification, when we bear in mind that both proceed by making generalizations; that both enable us to make previsions, differing only in their precision: and that while the one deals with equal properties, magnitudes, and relations, the other deals with properties and relations which

approximate towards equality in various degrees.

Without further argument it will, we think, be admitted that the sciences are none of them separately evolved - are none of them independent either logically or historically; but that all of them have, in a greater or less degree, required aid and reciprocated it. Indeed, it needs but to throw aside hypotheses, and contemplate the mixed character of surrounding phenomena, to see at once that these notions of division and succession in the kinds of knowledge are simply scientific fictions: good, if regarded merely as aids to study; bad, if regarded as representing realities in Nature. No facts whatever are presented to our senses uncombined with other facts - no facts whatever but are in some degree disguised by accompanying facts: disguised in such a manner that all must be partially understood before any one can be understood. If it be said, as by M. Comte, that gravitating force should be treated of before other forces, seeing that all things are subject to it, it may on like grounds be said that heat should be first dealt with; seeing that thermal forces are everywhere in action. Nay more, it may be urged that the ability of any portion of matter to manifest visible gravitative phenomena depends on its state of aggregation, which is determined by heat; that only by the aid of thermology can we explain those apparent exceptions to the gravitating tendency which are presented by steam and smoke, and so establish its universality, and that, indeed, the very existence of the Solar System in a solid form is just as much a question of heat as it is one of gravitation. Take other cases:—All phenomena recognized by the eyes, through which only are the data of exact science ascertainable, are complicated with optical phenomena, and cannot be exhaustively known until optical principles are known. The burning of a candle cannot be explained without involving chemistry, mechanics, thermology. Every wind that blows is determined by influences partly solar, partly

lunar, partly hygrometric; and implies considerations of fluid equilibrium and physical geography. The direction, dip, and variations of the magnetic needle, are facts half terrestrial, half celestial—are caused by earthly forces which have cycles of change corresponding with astronomical periods. The flowing of the Gulf Stream and the annual migration of icebergs towards the equator, involve in their explanation the Earth's rotation and spheroidal form, the laws of hydrostatics, the relative densities of cold and warm water, and the doctrines of evaporation. It is no doubt true, as M. Comte says, that "our position in the Solar System, and the motions, form, size, and equilibrium of the mass of our world among the planets, must be known before we can understand the phenomena going on at its surface." But, fatally for his hypothesis, it is also true that we must understand a great part of the phenomena going on at its surface before we can know its position, &c., in the Solar System. It is not simply that, as already shown, those geometrical and mechanical principles by which celestial appearances are explained, were first generalized from terrestrial experiences; but it is that even the obtaining of correct data on which to base astronomical generalizations, implies advanced terrestrial physics. Until after optics had made considerable advance, the Copernican system remained but a speculation. A single modern observation on a star has to undergo a careful analysis by the combined aid of various sciences—has to be *digested by the organism of the sciences*; which have severally to assimilate their respective parts of the observation, before the essential fact it contains is available for the further development of astronomy. It has to be corrected not only for nutation of the Earth's axis and for precession of the equinoxes, but for aberration and for refraction; and the formation of the tables by which refraction is calculated, presupposes knowledge of the law of decreasing density in the

upper atmospheric strata, of the law of decreasing temperature and the influence of this on the density, and of hygrometric laws as also affecting density. So that, to get materials for further advance, astronomy requires not only the indirect aid of the sciences which have presided over the making of its improved instruments, but the direct aid of an advanced optics, of barology, of thermology, of hygrometry; and if we remember that these delicate observations are in some cases registered electrically, and that they are further corrected for the "personal equation"—the time elapsing between seeing and registering, which differs with different observers—we may even add electricity and psychology. And here, before leaving these illustrations, and especially this last one, let us not omit to notice how well they exhibit that increasingly active *consensus* of the sciences which characterizes their advancing development. Besides finding that in these later times a discovery in one science commonly causes progress in others; besides finding that a great part of the questions with which modern science deals are so mixed as to require the co-operation of many sciences for their solution; we find that, to make a single good observation in the purest of the natural sciences, requires the combined aid of half a dozen other sciences.

Perhaps the clearest comprehension of the interconnected growth of the sciences may be obtained by contemplating that of the arts, to which it is strictly analogous, and with which it is bound up. Most intelligent persons must have been occasionally struck with the numerous antecedents pre-supposed by one of our processes of manufacture. Let him trace the production of a printed cotton, and consider all that is implied by it. There are the many successive improvements through which the power-looms reached their present perfection; there is the steam-engine that drives them, having its long history from Papin downwards; there are the lathes in which its cylinder was bored, and the string of ancestral

lathes from which those lathes proceeded; there is the steam-hammer under which its crank shaft was welded; there are the puddling furnaces, the blast-furnaces, the coal-mines and the iron-mines needful for producing the raw material; there are the slowly improved appliances by which the factory was built, and lighted, and ventilated; there are the printing engine, and the dye-house, and the colour-laboratory with its stock of materials from all parts of the world, implying cochineal-culture, logwood-cutting, indigo-growing; there are the implements used by the producers of cotton, the gins by which it is cleaned, the elaborate machines by which it is spun; there are the vessels in which cotton is imported, with the building-slips, the rope-yards, the sail-cloth factories, the anchor-forges, needful for making them; and besides all these directly necessary antecedents, each of them involving many others, there are the institutions which have developed the requisite intelligence, the printing and publishing arrangements which have spread the necessary information, the social organization which has rendered possible such a complex co-operation of agencies. Further analysis would show that the many arts thus concerned in the economical production of a child's frock, have each been brought to its present efficiency by slow steps which the other arts have aided; and that from the beginning this reciprocity has been on the increase. It needs but on the one hand to consider how impossible it is for the savage, even with ore and coal ready, to produce so simple a thing as an iron hatchet; and then to consider, on the other hand, that it would have been impracticable among ourselves, even a century ago, to raise the tubes of the Britannia bridge from lack of the hydraulic press; to see how mutually dependent are the arts, and how all must advance that each may advance. Well, the sciences are involved with each other in just the same manner. They are, in fact, inextricably woven into this same

complex web of the arts; and are only conventionally independent of it. Originally the two were one. How to fix the religious festivals; when to sow; how to weigh commodities; and in what manner to measure ground; were the purely practical questions out of which arose astronomy, mechanics, geometry. Since then there has been a perpetual inosculation of the sciences and the arts. Science has been supplying art with truer generalizations and more completely quantitative previsions. Art has been supplying science with better materials, and more perfect instruments. And all along the interdependence has been growing closer, not only between art and science, but among the arts themselves, and among the sciences themselves. How completely the analogy holds throughout, becomes yet clearer when we recognize the fact that *the sciences are arts to one another*. If, as occurs in almost every case, the fact to be analyzed by any science, has first to be prepared—to be disentangled from disturbing facts by the afore discovered methods of other sciences; the other sciences so used, stand in the position of arts. If, in solving a dynamical problem, a parallelogram is drawn, of which the sides and diagonal represent forces, and by putting magnitudes of extension for magnitudes of force a measurable relation is established between quantities not else to be dealt with; it may be fairly said that geometry plays towards mechanics much the same part that the fire of the founder plays towards the metal he is going to cast. If, in analyzing the phenomena of the coloured rings surrounding the point of contact between two lenses, a Newton ascertains by calculation the amount of certain interposed spaces, far too minute for actual measurement; he employs the science of number for essentially the same purpose as that for which the watchmaker employs tools. If, before calculating the orbit of a comet from its observed position, the astronomer has to separate all the errors of observation, it is manifest that the refraction-tables, and

logarithm-books, and formulæ, which he successively uses, serve him much as retorts, and filters, and cupels serve the assayer who wishes to separate the pure gold from all accompanying ingredients. So close, indeed, is the relationship, that it is impossible to say where science begins and art ends. All the instruments of the natural philosopher are the products of art; the adjusting one of them for use is an art; there is art in making an observation with one of them; it requires art properly to treat the facts ascertained; nay, even the employing established generalizations to open the way to new generalizations, may be considered as art. In each of these cases previously organized knowledge becomes the implement by which newknowledge is got at: and whether that previously organized knowledge is embodied in a tangible apparatus or in a formula, matters not in so far as its essential relation to the new knowledge is concerned. If art is applied knowledge, then such portion of a scientific investigation as consists of applied knowledge is art. Hence we may even say that as soon as any prevision in science passes out of its originally passive state, and is employed for reaching other previsions, it passes from theory into practice — becomes science in action

becomes art. And after contemplating these facts, we shall the more clearly perceive that as the connexion of the arts with each other has been becoming more intimate; as the help given by sciences to arts and by arts to sciences, has been age by age increasing; so the interdependence of the sciences themselves has been ever growing greater, their relations more involved, their *consensus* more active.

In here ending our sketch of the Genesis of Science, we are conscious of having done the subject but scant justice. Two difficulties have stood in our way: one, the having to touch on so many points in such small space; the other, the necessity of treating in serial arrangement a process which is not

serial. Nevertheless, we believe the evidence assigned suffices to substantiate the leading propositions with which we set out. Inquiry into the first stages of science confirms the conclusion drawn from analysis of science as now existing, that it is not distinct from common knowledge, but an outgrowth from it — an extension of perception by means of reason. That more specific characteristic of scientific previsions, which was analytically shown to distinguish them from the previsions of uncultured intelligence — their quantitiveness — we also see to have been the characteristic alike of the initial steps in science, and of all the steps succeeding them. The facts and admissions cited in disproof of the assertion that the sciences follow one another, both logically and historically, in the order of their decreasing generality, have been enforced by the instances we have met with, showing that a more general science as much owes its progress to the presentation of new problems by a more special science, as the more special science owes its progress to the solutions which the more general science is thus led to attempt — instances, therefore, illustrating the position that scientific advance is as much from the special to the general as from the general to the special. Quite in harmony with this position we find to be the admissions that the sciences are as branches of one trunk, and that they were at first cultivated simultaneously. This harmony becomes the more marked on finding, as we have done, not only that the sciences have a common root, but that science in general has a common root with language, classification, reasoning, art; that throughout civilization these have advanced together, acting and reacting upon each other just as the separate sciences have done; and that thus the development of intelligence in all its divisions and sub-divisions has conformed to this same law which we have shown that the sciences conform to. From all which we may perceive that the sciences can with no greater propriety be arranged

in a succession, than language, classification, reasoning, art, and science, can be arranged in a succession; that, however needful a succession may be for the convenience of books and catalogues, it must be recognized as merely a convention; and that so far from its being the function of a philosophy of the sciences to establish a hierarchy, it is its function to show that the linear arrangements required for literary purposes, have none of them any basis either in Nature or History.

There is one further remark we must not omit—a remark touching the importance of the question that has been discussed. Topics of this abstract nature are commonly slighted as of no practical moment; and, doubtless, many will think it of little consequence what theory respecting the genesis of science may be entertained. But the value of truths is often great, in proportion as their generality is wide. And it must be so here. A correct theory of the development of the sciences must have an important effect on education; and, through education, on civilization. Much as we differ from him in other respects, we agree with M. Comte in the belief that, rightly conducted, the education of the individual must have a certain correspondence with the evolution of the race. No one can contemplate the facts we have cited in illustration of the early stages of

science, without recognizing the necessity of the processes through which those stages were reached—a necessity which, in respect to the leading truths, may likewise be traced in all after stages. This necessity, originating in the very nature of the phenomena to be analyzed and the faculties to be employed, partially applies to the mind of the child as to that of the savage. We say partially, because the correspondence is not special but general only. Were the environment the same in both cases, the correspondence would be complete. But though the surrounding material out of which science is to be organized, is, in many cases, the same to the juvenile mind and the aboriginal mind, it is not so throughout; as, for instance, in the case of chemistry, the phenomena of which are accessible to the one, but were inaccessible to the other. Hence, in proportion as the environment differs, the course of evolution must differ. After admitting exceptions, however, there remains a substantial parallelism; and, if so, it is of moment to ascertain what really has been the process of scientific evolution. The establishment of an erroneous theory must be disastrous in its educational results; while the establishment of a true one must be fertile in school-reforms and consequent social benefits.

MORALS AND MORAL SENTIMENTS

(1871)

IF a writer who discusses unsettled questions takes up every gauntlet thrown down to him, polemical writing will absorb much of his energy. Having a power of work which unfortunately does not suffice for executing with anything like due rapidity the task I have undertaken, I have made it a policy to avoid

controversy as much as possible, even at the cost of being seriously misunderstood. Hence it resulted that when in *Macmillan's Magazine*, for July, 1869, Mr. Richard Hutton published, under the title of "A Questionable Parentage for Morals," a criticism on a doctrine of mine, I decided to let his misrepresenta-

tions pass unnoticed until, in the course of my work, I arrived at the stage where, by a full exposition of this doctrine, they would be set aside. It did not occur to me that, in the meantime, these erroneous statements, accepted as true statements, would be repeated by other writers, and my views commented upon as untenable. This, however, has happened. In more periodicals than one, I have seen it asserted that Mr. Hutton has effectually disposed of my hypothesis. Supposing that this hypothesis has been rightly expressed by Mr. Hutton, Sir John Lubbock, in his *Origin of Civilisation*, &c., has been led to express a partial dissent; which I think he would not have expressed had my own exposition been before him. Mr. Mivart, too, in his recent *Genesis of Species*, has been similarly betrayed into misapprehensions. And now Sir Alexander Grant, following the same lead, has conveyed to the readers of the *Portsmouth Review* another of these conceptions, which is but very partially true. Thus I find myself compelled to say as much as will serve to prevent further spread of the mischief.

If a general doctrine concerning a highly-involved class of phenomena could be adequately presented in a single paragraph of a letter, the writing of books would be superfluous. In the brief exposition of certain ethical doctrines held by me, which is given in Professor Bain's *Mental and Moral Science*, it is stated that they are —

as yet, nowhere fully expressed. They form part of the more general doctrine of Evolution which he is engaged in working out; and they are at present to be gathered only from scattered passages. It is true that, in his first work, *Social Statics*, he presented what he then regarded as a tolerably complete view of one division of Morals. But without abandoning this view, he now regards it as inadequate—more especially in respect of its basis.

Mr. Hutton, however, taking the bare enunciation of one part of this basis, deals with it critically; and, in the absence of any exposition by me, sets forth what he supposes to be my grounds

for it, and proceeds to show that they are unsatisfactory.

If, in his anxiety to suppress what he doubtless regards as a pernicious doctrine, Mr. Hutton could not wait until I had explained myself, it might have been expected that he would use whatever information was to be had concerning it. So far from seeking out such information, however, he has, in a way for which I cannot account, ignored the information immediately before him.

The title which Mr. Hutton has chosen for his criticism is, "A Questionable Parentage for Morals." Now he has ample means of knowing that I allege a primary basis of Morals, quite independent of that which he describes and rejects. I do not refer merely to the fact that having, when he reviewed *Social Statics*,¹ expressed his very decided dissent from this primary basis, he must have been aware that I alleged it; for he may say that in the many years which have since elapsed he had forgotten all about it. But I refer to the distinct enunciation of this primary basis in that letter to Mr. Mill from which he quotes. In a preceding paragraph of the letter, I have explained that, while I accept utilitarianism in the abstract, I do not accept that current utilitarianism which recognizes for the guidance of conduct nothing beyond empirical generalizations; and I have contended that—

Morality, properly so-called—the science of right conduct—has for its object to determine *how* and *why* certain modes of conduct are detrimental, and certain other modes beneficial. These good and bad results cannot be accidental, but must be necessary consequences of the constitution of things; and I conceive it to be the business of Moral Science to deduce, from the laws of life and the conditions of existence, what kinds of action necessarily tend to produce happiness, and what kinds to produce unhappiness. Having done this, its deductions are to be recognised as laws of conduct; and are to be conformed to irrespective of a direct estimation of happiness or misery.

Nor is this the only enunciation of what I conceive to be the primary basis

¹ See *Prospective Review* for January, 1852.

of morals, contained in this same letter. A subsequent paragraph separated by four lines only from that which Mr. Hutton extracts, commences thus :—

Progressing civilization, which is of necessity a succession of compromises between old and new, requires a perpetual re-adjustment of the compromise between the ideal and the practicable in social arrangements: to which end, both elements of the compromise must be kept in view. If it is true that pure rectitude prescribes a system of things far too good for men as they are, it is not less true that mere expediency does not of itself tend to establish a system of things any better than that which exists. While absolute morality owes to expediency the checks which prevent it from rushing into Utopian absurdities, expediency is indebted to absolute morality for all stimulus to improvement. Granted that we are chiefly interested in ascertaining what is *relatively right*, it still follows that we must first consider what is *absolutely right*; since the one conception pre-supposes the other.

I do not see how there could well be a more emphatic assertion that there exists a primary basis of morals independent of, and in a sense antecedent to, that which is furnished by experiences of utility; and consequently, independent of, and in a sense antecedent to, those moral sentiments which I conceive to be generated by such experiences. Yet no one could gather from Mr. Hutton's article that I assert this; or would even find reasons for a faint suspicion that I do so. From the reference made to my further views, he would infer my acceptance of that empirical utilitarianism which I have expressly repudiated. And the title which Mr. Hutton gives to his paper clearly asserts, by implication, that I recognize no "parentage for morals" beyond that of the accumulation and organisation of the effects of experience. I cannot believe that Mr. Hutton intended to convey this erroneous impression. He was, I suppose, too much absorbed in contemplating the proposition he combats to observe, or, at least, to attach any weight to, the propositions which accompany it. But I am sorry he did not perceive the mischief he was

likely to do me by spreading this one-sided statement.

I pass now to the particular question at issue — not the "parentage for morals," but the parentage of moral sentiments. In describing my view on this more special doctrine, Mr. Hutton has similarly, I regret to say, neglected the data which would have helped him to draw an approximately true outline of it. It cannot well be that the existence of such data was unknown to him. They are contained in the *Principles of Psychology*; and Mr. Hutton reviewed that work when it was first published.¹ In a chapter on the Feelings, which occurs near the end of it, there is sketched out a process of evolution by no means like that which Mr. Hutton indicates; and had he turned to that chapter he would have seen that his description of the genesis of moral sentiments out of organized experiences is not such a one as I should have given. Let me quote a passage from that chapter :

Not only are those emotions which form the immediate stimuli to actions, thus explicable; but the like explanation applies to the emotions that leave the subject of them comparatively passive: as, for instance, the emotion produced by beautiful scenery. The gradually increasing complexity in the groups of sensations and ideas co-ordinated, ends in the co-ordination of those vast aggregations of them which a grand landscape excites and suggests. The infant taken into the midst of mountains, is totally unaffected by them; but is delighted with the small group of attributes and relations presented in a toy. The child can appreciate, and be pleased with, the more complicated relations of household objects and localities, the garden, the field, and the street. But it is only in youth and mature age, when individual things and small assemblages of them have become familiar and automatically cognizable, that those immense assemblages which landscapes present can be adequately grasped, and the highly aggregated states of consciousness produced by them, experienced. Then, however, the various minor groups of states that have been in earlier days severally produced by trees, by fields, by

¹ His criticism will be found in the *National Review* for January, 1856, under the title "Atheism."

streams, by cascades, by rocks, by precipices, by mountains, by clouds, are aroused together. Along with the sensations immediately received, there are partially excited the myriads of sensations that have been in times past received from objects such as those presented: further, there are partially excited the various incidental feelings that were experienced on all these countless past occasions; and there are probably also excited certain deeper, but now vague combinations of states, that were organized in the race during barbarous times, when its pleasurable activities were chiefly among the woods and waters. And out of all these excitations, some of them actual but most of them nascent, is composed the emotion which a fine landscape produces in us.

It is, I think, amply manifest that the processes here indicated are not to be taken as intellectual processes not as processes in which recognized relations between pleasures and their antecedents, or intelligent adaptations of means to ends, form the dominant elements. The state of mind produced by an aggregate of picturesque objects is not one resolvable into propositions. The sentiment does not contain within itself any consciousness of causes and consequences of happiness. The vague recollections of other beautiful scenes and other delightful days which it dimly rouses, are not aroused because of any rational co-ordinations of ideas that have been formed in bygone years. Mr. Hutton, however, assumes that in speaking of the genesis of moral feelings as due to inherited experiences of the pleasures and pains caused by certain modes of conduct, I am speaking of reasoned-out experiences experiences consciously accumulated and generalized. He overlooks the fact that the genesis of emotions is distinguished from the genesis of ideas in this; that whereas the ideas are composed of elements that are simple, definitely related, and (in the case of general ideas) constantly related, emotions are composed of enormously complex aggregates of elements that are never twice alike, and which stand in relations that are never twice alike. The difference in the resulting modes of consciousness is this:—In the genesis of an idea the successive experiences, be

they of sounds, colours, touches, tastes, or be they of the special objects which combine many of these into groups, have so much in common that each, when it occurs, can be definitely thought of as like those which preceded it. But in the genesis of an emotion the successive experiences so far differ that each of them, when it occurs, suggests past experiences which are not specifically similar, but have only a general similarity; and, at the same time, it suggests benefits or evils in past experience which likewise are various in their special natures, though they have a certain community in general nature. Hence it results that the consciousness aroused is a multitudinous, confused consciousness, in which, along with a certain kind of combination among the impressions received from without, there is a vague cloud of ideal combinations akin to them, and a vague mass of ideal feelings of pleasure or pain which were associated with these. We have abundant proof that feelings grow up without reference to recognized causes and consequences, and without the possessor of them being able to say why they have grown up; though analysis, nevertheless, shows that they have been formed out of connected experiences. The familiar fact that a kind of jam which was, during childhood, repeatedly taken after medicine, may become, by simple association of sensations, so nauseous that it cannot be tolerated in after-life, illustrates clearly the way in which repugnances may be established by habitual association of feelings, without any belief in causal connexion: or rather, in spite of the knowledge that there is no causal connexion. Similarly with pleasurable emotions. The cawing of rooks is not in itself an agreeable sound: musically considered, it is very much the contrary. Yet the cawing of rooks usually produces in people feelings of a grateful kind—feelings which most of them suppose to result from the quality of the sound itself. Only the few who are given to self-analysis are aware that

the cawing of rooks is agreeable to them because it has been connected with countless of their greatest gratifications—with the gathering of wild flowers in childhood, with Saturday afternoon excursions in school-boy days, with midsummer holidays in the country, when books were thrown aside and lessons were replaced by games and adventure in the fields, with fresh, sunny mornings in after years, when a walking excursion was an immense relief from toil. As it is, this sound though not causally related to all these multitudinous and varied past delights, but only often associated with them, can no more be heard without rousing a dim consciousness of these delights than the voice of an old friend unexpectedly coming into the house can be heard without suddenly raising a wave of that feeling that has resulted from the pleasures of past companionship. If we are to understand the genesis of emotions either in the individual or in the race, we must take account of this all-important process. Mr Hutton, however, apparently overlooking it, and not having reminded himself by referring to the *Principles of Psychology* that I insist upon it, represents my hypothesis to be that a certain sentiment results from the consolidation of intellectual conclusions. He speaks of me as believing that "what seem to us now the 'necessary intuitions and *a priori* assumptions of human nature are likely to prove, when scientifically analysed, nothing, but a similar conglomeration of our ancestors' *lost observations and most useful empirical rules*." He supposes me to think that men, having, in past times come to see that truthfulness was useful, 'the habit of approving, truth speaking and fidelity to engagements, which was first based on this ground of utility, became so rooted that the utilitarian ground of it was forgotten and we find ourselves springing to the belief in truth speaking, and fidelity to engagements from an inherited tendency.' Similarly throughout Mr Hutton has so used the word "utility,

and so interpreted it on my behalf, as to make me appear to mean that moral sentiment is formed out of *conscious generalizations* respecting what is beneficial and what detrimental. Were such my hypothesis, his criticisms would be very much to the point, but as such is not my hypothesis, they fall to the ground. The experiences of utility I refer to are those which become registered, not as distinctly recognized connexions between certain kinds of acts and certain kinds of remote results, but those which become registered in the shape of associations between groups of feelings that have often occurred together, though the relation between them has not been consciously generalized. Associations the origin of which may be as little perceived as is the origin of the pleasure given by the sounds of a rookery, but which, nevertheless have arisen in the course of duly converse with things and serve as incentives or deterrents.

In the paragraph which Mr Hutton has extracted from my letter to Mr Mill, I have indicated an analogy between those effects of emotional experiences out of which I believe moral sentiments have been developed and those effects of intellectual experiences out of which I believe speculative intuitions have been developed. Rightly considering that the first of these hypotheses cannot stand if the last is disproved, Mr Hutton has directed part of his attack against this last. But would it not have been well if he had referred to the *Principles of Psychology* where this last hypothesis is set forth at length, before entering it? Would it not have been well to give an abstract of my own description of the process instead of substituting what he supposes my description must be? Any one who turns to the *Principles of Psychology* (first edition, pp 218-245), and reads the two chapters, "The Perception of Body as presenting Statical Attributes," and "The Perception of Space," will find that Mr Hutton's account of my view on this matter has

given him no notion of the view as it is expressed by me ; and will, perhaps, be less inclined to smile than he was when he read Mr. Hutton's account. I cannot here do more than thus imply the invalidity of such part of Mr. Hutton's argument as proceeds upon this incorrect representation. The pages which would be required for properly explaining the doctrine that space-intuitions result from organized experiences may be better used for explaining this analogous doctrine at present before us. This I will now endeavour to do ; not indirectly by correcting misapprehensions, but directly by an exposition which shall be as brief as the extremely involved nature of the process allows.

An infant in arms, when old enough to gaze at objects around with some vague recognition, smiles in response to the laughing face and soft caressing voice of its mother. Let there come some one who, with an angry face, speaks to it in loud, harsh tones. The smile disappears, the features contract into an expression of pain, and, beginning to cry, it turns away its head, and makes such movements of escape as are possible. What is the meaning of these facts? Why does not the frown make it smile, and the mother's laugh make it weep? There is but one answer. Already in its developing brain there is coming into play the structure through which one cluster of visual and auditory impressions excites pleasurable feelings, and the structure through which another cluster of visual and auditory impressions excites painful feelings. The infant knows no more about the relation existing between a ferocious expression of face, and the evils which may follow perception of it, than the young bird just out of its nest knows of the possible pain and death which may be inflicted by a man coming towards it ; and as certainly in the one case as in the other, the alarm felt is due to a partially-established nervous structure. Why does this partially-established nervous structure betray its presence thus early in the human being? Simply

because, in the past experiences of the human race, smiles and gentle tones in those around have been the habitual accompaniments of pleasurable feelings ; while pains of many kinds, immediate and more or less remote, have been continually associated with the impressions received from knit brows, and set teeth, and grating voice. Much deeper down than the history of the human race must we go to find the beginnings of these connexions. The appearances and sounds which excite in the infant a vague dread, indicate danger ; and do so because they are the physiological accompaniments of destructive action -- some of them common to man and inferior mammals, and consequently understood by inferior mammals, as every puppy shows us. What we call the natural language of anger, is due to a partial contraction of those muscles which actual combat would call into play ; and all marks of irritation, down to that passing shade over the brow which accompanies slight annoyance, are incipient stages of these same contractions. Conversely with the natural language of pleasure, and of that state of mind which we call amicable feeling : this, too, has a physiological interpretation.¹

Let us pass now from the infant in arms to the children in the nursery. What have the experiences of each been doing in aid of the emotional development we are considering? While its limbs have been growing more agile by exercise, its manipulative skill increasing by practice, its perceptions of objects growing by use quicker, more accurate, more comprehensive ; the associations between these two sets of impressions received from those around, and the pleasures and pains received along with them, or after them, have been by

¹ Hereafter I hope to elucidate at length these phenomena of expression. For the present, I can refer only to such further indications as are contained in two essays on "The Physiology of Laughter" and "The Origin and Function of Music."

frequent repetition made stronger, and their adjustments better. The dim sense of pain and the vague glow of delight which the infant felt, have, in the urchin, severally taken shapes that are more definite. The angry voice of a nursemaid no longer arouses only a formless feeling of dread, but also a specific idea of the slap that may follow. The frown on the face of a bigger brother, along with the primitive, indefinable sense of ill, brings the ideas of ills that are definable as kicks, and cuffs, and pullings of hair, and losses of toys. The faces of parents, looking now sunny, now gloomy, have grown to be respectively associated with multitudinous forms of gratification and multitudinous forms of discomfort or privation. Hence these appearances and sounds, which imply unity or enmity in those around, become symbolic of happiness and misery; so that eventually, perception of the one set or the other can scarcely occur without raising a wave of pleasurable feeling or of painful feeling. The body of this wave is still substantially of the same nature as it was at first; for though in each of these multitudinous experiences a special set of facial and vocal signs has been connected with a special set of pleasures or pains; yet since these pleasures or pains have been immensely varied in their kinds and combinations, and since the signs that preceded them were in no two cases quite alike, it results that even to the end the consciousness produced remains as vague as it is voluminous. The thousands of partially-aroused ideas resulting from past experiences are massed together and superposed, so as to form an aggregate in which nothing is distinct, but which has the character of being pleasurable or painful according to the nature of its original components: the chief difference between this developed feeling and the feeling aroused in the infant being, that on bright or dark background forming the body of it, may now be sketched out in thought the particular pleasures or pains which the

particular circumstances suggest as likely.

What must be the working of this process under the conditions of aboriginal life? The emotions given to the young savage by the natural language of love and hate in the members of his tribe, gain first a partial definiteness in respect to his intercourse with his family and playmates; and he learns by experience the utility, in so far as his own ends are concerned, of avoiding courses which call from others manifestations of anger, and taking courses which call from them manifestations of pleasure. Not that he consciously generalizes. He does not at that age, probably not at any age, formulate his experiences in the general principle that it is well for him to do things which bring smiles, and to avoid doing things which bring frowns. What happens is that having, in the way shown, inherited this connexion between the perception of anger in others and the feeling of dread, and having discovered that certain acts of his bring on this anger, he cannot subsequently think of committing one of these acts without thinking of the resulting anger and feeling more or less of the resulting dread. He has no thought of the utility or inutility of the act itself: the deterrent is the mainly vague, but partially definite, fear of evil that may follow. So understood, the deterring emotion is one which has grown out of experiences of utility, using that word in its ethical sense: and if we ask why this dreaded anger is called forth from others, we shall habitually find that it is because the forbidden act entails pain somewhere—is negatived by utility. On passing from domestic injunctions to injunctions current in the tribe, we see no less clearly how these emotions produced by approbation and reprobation come to be connected in experience with actions which are beneficial to the tribe, and actions which are detrimental to the tribe; and how there consequently grow up incentives to the one class of actions and prejudices against the other class. From early boyhood

the young savage hears recounted the daring deeds of his chief—hears them in words of praise, and sees all faces glowing with admiration. From time to time also he listens while some one's cowardice is described in tones of scorn, and with contemptuous metaphors, and sees him meet with derision and insult whenever he appears. That is to say, one of the things that come to be associated in his mind with smiling faces, which are symbolical of pleasures in general, is courage; and one of the things that come to be associated in his mind with frowns and other marks of enmity, which form his symbol of unhappiness, is cowardice. These feelings are not formed in him because he has reasoned his way to the truth that courage is useful to the tribe, and, by implication, to himself, or to the truth that cowardice is a cause of evil. In adult life he may perhaps see this; but he certainly does not see it at the time when bravery is thus joined in his consciousness with all that is good, and cowardice with all that is bad. Similarly there are produced in him feelings of inclination or repugnance towards other lines of conduct that have become established or interdicted, because they are beneficial or injurious to the tribe: though neither the young nor the adults know why they have become established or interdicted. Instance the praise worthiness of wife-stealing, and the viciousness of marrying within the tribe.

We may now ascend a stage to an order of incentives and restraints derived from these. The primitive belief is that every dead man becomes a demon, who is often somewhere at hand, may at any moment return, may give aid or do mischief, and has to be continually propitiated. Hence, among other agents whose approbation or reprobation are contemplated by the savage as consequences of his conduct, are the spirits of his ancestors. When a child he is told of their deeds, now in triumphant tones, now in whispers of horror; and the instilled belief that they may inflict some

vaguely-imagined but fearful evil, or give some great help, becomes a powerful incentive or deterrent. Especially does this happen when the story is of a chief, distinguished for his strength, his ferocity, his persistence in that revenge on enemies which the experiences of the savage make him regard as beneficial and virtuous. The consciousness that such a chief, dreaded by neighbouring tribes, and dreaded, too, by members of his own tribe, may reappear and punish those who have disregarded his injunctions, becomes a powerful motive. But it is clear, in the first place, that the imagined anger and the imagined satisfaction of this deified chief, are simply transfigured forms of the anger and satisfaction displayed by those around; and that the feelings accompanying such imaginations have the same original root in the experiences which have associated an average of painful results with the manifestation of another's anger, and an average of pleasurable results with the manifestation of another's satisfaction. And it is clear, in the second place, that the actions thus forbidden and encouraged must be mostly actions that are respectively detrimental and beneficial to the tribe; since the successful chief is usually a better judge than the rest, and has the preservation of the tribe at heart. Hence experiences of utility, consciously or unconsciously organized, underlie his injunctions; and the sentiments which prompt obedience are, though very indirectly and without the knowledge of those who feel them, referable to experiences of utility.

This transfigured form of restraint, differing at first but little from the original form, admits of immense development. Accumulating traditions, growing in grandeur as they are repeated from generation to generation, make more and more superhuman the early-recorded hero of the race. His powers of inflicting punishment and giving happiness become ever greater, more multitudinous, and more varied; so that the dread of divine displeasure, and the

desire to obtain divine approbation, acquire a certain largeness and generality. Still the conceptions remain anthropomorphic. The revengeful deity continues to be thought of in terms of human emotions, and continues to be represented as displaying these emotions in human ways. Moreover, the sentiments of right and duty, so far as they have become developed, refer mainly to divine commands and interdicts; and have little reference to the natures of the acts commanded or interdicted. In the intended offering-up of Isaac, in the sacrifice of Jephthah's daughter, and in the hewing to pieces of Agag, as much as in the countless atrocities committed from religious motives by various early historic races, as by some existing savage races, we see that the morality and immorality of actions, as we understand them, are at first little recognized; and that the feelings, chiefly of dread, which serve in place of them, are feelings felt towards the unseen beings supposed to issue the commands and interdicts.

Here it will be said that, as just admitted, these are not the moral sentiments properly so called. They are simply sentiments that precede and make possible those highest sentiments which do not refer either to personal benefits or evils to be expected from men, or to more remote rewards and punishments. Several comments are, however, called forth by this criticism. One is, that if we glance back at past beliefs and their correlative feelings, as shown in Dante's poem, in the mystery-plays of the middle ages, in St. Bartholomew massacres, in burnings for heresy, we get proof that in comparatively modern times right and wrong meant little else than subordination or insubordination—to a divine ruler primarily, and under him to a human ruler. Another is, that down to our own day this conception largely prevails, and is even embodied in elaborate ethical works—in instance the *Essays on the Principles of Morality*, by Jonathan Dymond, which recognises no ground of

moral obligation save the will of God as expressed in the current creed. And yet a further is, that while in sermons the torments of the damned and the joys of the blessed are set forth as the dominant deterrents and incentives, and while we have prepared for us printed instructions "how to make the best of both worlds," it cannot be denied that the feelings which impel and restrain men are still largely composed of elements like those operative on the savage: the dread, partly vague, partly specific, associated with the idea of reprobation, human and divine.

But during the growth of that civilization which has been made possible by these ego-altruistic sentiments, there have been slowly evolving the altruistic sentiments. Development of these has gone on only as fast as society has advanced to a state in which the activities are mainly peaceful. The root of all the altruistic sentiments is sympathy; and sympathy could become dominant only when the mode of life, instead of being one that habitually inflicted direct pain, became one which conferred direct and indirect benefits: the pains inflicted being mainly incidental and indirect. Adam Smith made a large step towards this truth when he recognized sympathy as giving rise to these superior controlling emotions. His *Theory of Moral Sentiments*, however, requires to be supplemented in two ways. The natural process by which sympathy becomes developed into a more and more important element of human nature has to be explained; and there has also to be explained the process by which sympathy produces the highest and most complex of the altruistic sentiments—that of justice. Respecting the first process, I can here do no more than say that sympathy may be proved, both inductively and deductively, to be the concomitant of gregariousness: the two having all along increased by reciprocal aid. Multiplication has ever tended to force into an association, more or less close, all

creatures having kinds of food and supplies of food that permit association; and established psychological laws warrant the inference that some sympathy will inevitably result from habitual manifestations of feelings in presence of one another, and that the gregariousness being augmented by the increase of sympathy, further facilitates the development of sympathy. But there are negative and positive checks upon this development—negative, because sympathy cannot advance faster than intelligence advances, since it presupposes the power of interpreting the natural language of the various feelings, and of mentally representing those feelings; positive, because the immediate needs of self-preservation are often at variance with its promptings, as, for example, during the predatory stages of human progress. For explanations of the second process, I must refer to the *Principles of Psychology* (§ 202, first edition, and § 215, second edition) and to *Social Statics*, part ii., chapter v.¹ Asking that in default of space these explanations may be taken for granted, let me here point out in what sense even sympathy, and the sentiments that result from it, are due to experiences of utility. If we suppose all thought of rewards or punishments, immediate or remote, to be left out of consideration, it is clear that any one who hesitates to inflict a pain because of the vivid representation of that pain which rises in his consciousness, is restrained, not by any sense of obligation or by any formulated doctrine of utility, but by the painful association established in him. And it is clear that if, after repeated experiences of the moral discomfort he has felt from witnessing the unhappiness indirectly caused by some of his acts, he is led to check

himself when again tempted to those acts, the restraint is of like nature. Conversely with the pleasure-giving acts: repetitions of kind deeds, and experiences of the sympathetic gratifications that follow, tend continually to make stronger the association between such deeds and feelings of happiness.

Eventually these experiences may be consciously generalized, and there may result a deliberate pursuit of sympathetic gratifications. There may also come to be distinctly recognized the truths that the remoter results, kind and unkind conduct, are respectively beneficial and detrimental—that due regard for others is conducive to ultimate personal welfare, and disregard of others to ultimate personal disaster; and then there may become current such summations of experience as “honesty is the best policy.” But so far from regarding these intellectual recognitions of utility as preceding and causing the moral sentiment, I regard the moral sentiment as preceding such recognitions of utility, and making them possible. The pleasures and pains directly resulting in experience from sympathetic and unsympathetic actions, had first to be slowly associated with such actions, and the resulting incentives and deterrents frequently obeyed, before there could arise the perceptions that sympathetic and unsympathetic actions are remotely beneficial or detrimental to the actor; and they had to be obeyed still longer and more generally before there could arise the perceptions that they are socially beneficial or detrimental. When, however, the remote effects, personal and social, have gained general recognition, are expressed in current maxims, and lead to injunctions having the religious sanction, the sentiments that prompt sympathetic actions and check unsympathetic ones are immensely strengthened by their alliances. Approbation and reprobation, divine and human, come to be associated in thought with the sympathetic and unsympathetic actions respectively. The commands of the creed,

¹ I may add that in *Social Statics*, chap. xxx., I have indicated, in a general way, the causes of the development of sympathy and the restraints upon its development—confining the discussion, however, to the case of the human race, my subject limiting me to that. The accompanying teleology I now disclaim.

the legal penalties, and the code of social conduct, unitedly enforce them; and every child as it grows up, daily has impressed on it by the words and faces and voices of those around the authority of these highest principles of conduct. And now we may see why there arises a belief in the special sacredness of these highest principles, and a sense of the supreme authority of the altruistic sentiments answering to them. Many of the actions which, in early social stages, received the religious sanction and gained public approbation, had the drawback that such sympathies as existed were outraged, and there was hence an imperfect satisfaction. Whereas these altruistic actions, while similarly having the religious sanction and gaining public approbation, bring a sympathetic consciousness of pleasure given or of pain prevented; and, beyond this, bring a sympathetic consciousness of human welfare at large, as being furthered by making altruistic actions habitual. Both this special and this general sympathetic consciousness become stronger and wider in proportion as the power of mental representation increases, and the imagination of consequences, immediate and remote, grows more vivid and comprehensive. Until at length these altruistic sentiments begin to call in question the authority of those egoaltruistic sentiments which once ruled unchallenged. They prompt resistance to laws that do not fulfil the conception of justice, encourage men to brave the frowns of their fellows by pursuing a course at variance with customs that are perceived to be socially injurious, and even cause dissent from the current religion; either to the extent of disbelief in those alleged divine attributes and acts not approved by this supreme moral arbiter, or to the extent of entire rejection of a

creed which ascribes such attributes and acts.

Much that is required to make this hypothesis complete must stand over until, at the close of the second volume of the *Principles of Psychology*, I have space for a full exposition. What I have said will make it sufficiently clear that two fundamental errors have been made in the interpretation put upon it. Both Utility and Experience have been construed in senses much too narrow. Utility, convenient a word as it is from its comprehensiveness, has very inconvenient and misleading implications. It vividly suggests uses, and means, and proximate ends, but very faintly suggests the pleasures, positive or negative, which are the ultimate ends, and which, in the ethical meaning of the word, are alone considered; and, further, it implies conscious recognition of means and ends — implies the deliberate taking of some course to gain a perceived benefit. Experience, too, in its ordinary acceptation, connotes definite perceptions of causes and consequences, as standing in observed relations, and is not taken to include the connexions formed in consciousness between states that recur together, when the relation between them, causal or other, is not perceived. It is in their widest senses, however, that I habitually use these words, as will be manifest to every one who reads the *Principles of Psychology*; and it is in their widest senses that I have used them in the letter to Mr. Mill. I think I have shown above that, when they are so understood, the hypothesis briefly set forth in that letter is by no means so indefensible as is supposed. At any rate, I have shown—what seemed for the present needful to show—that Mr. Hutton's versions of my views must not be accepted as correct.

MANNERS AND FASHION

(1854)

WHOEVER has studied the physiognomy of political meetings, cannot fail to have remarked a connexion between democratic opinions and peculiarities of costume. At a Chartist demonstration, a lecture on Socialism, or a *soirée* of the Friends of Italy, there will be seen many among the audience, and a still larger ratio among the speakers, who get themselves up in a style more or less unusual. One gentleman on the platform divides his hair down the centre, instead of on one side; another brushes it back off the forehead, in the fashion known as "bringing out the intellect"; a third has so long forsworn the scissors, that his locks sweep his shoulders. A sprinkling of moustaches may be observed; here and there an imperial; and occasionally some courageous breaker of conventions exhibits a full-grown beard.¹ This non-conformity in hair is countenanced by various nonconformities in dress, shown by others of the assemblage. Bare necks, shirt collars *à la* Byron, waist-coats cut Quaker fashion, wonderfully shaggy great coats, numerous oddities in form and colour, destroy the monotony usual in crowds. Even those exhibiting no conspicuous peculiarity, frequently indicate by something in the pattern of their clothes, that they pay small regard to what their tailors tell them about the prevailing taste. And when the gathering breaks up, the varieties of head gear displayed—the number of caps, and the abundance of felt hats—suffice to prove that were the world at large like-minded, the black cylinders which tyrannize over us would soon be deposed.

This relationship between political discontent and disregard of customs exists on the Continent also. Red

republicanism is everywhere distinguished by its hirsuteness. The authorities of Prussia, Austria, and Italy, alike recognize certain forms of hat as indicative of disaffection, and fulminate against them accordingly. In some places the wearer of a blouse runs a risk of being classed among the *suspects*; and in others, he who would avoid the bureau of police must beware how he goes out in any but the ordinary colours. Thus, democracy abroad, as at home, tends towards personal singularity. Nor is this association of characteristics peculiar to modern times, or to reformers of the State. It has always existed; and it has been manifested as much in religious agitations as in political ones. The Puritans, disapproving of the long curls of the Cavaliers, as of their principles, cut their own hair short, and so gained the name of "Roundheads." The marked religious nonconformity of the Quakers was accompanied by an equally-marked nonconformity of manners—in attire, in speech, in salutation. The early Moravians not only believed differently, but at the same time dressed differently, and lived differently, from their fellow Christians. That the association between political independence and independence of personal conduct is not a phenomenon of to-day only, we may see alike in the appearance of Franklin at the French court in plain clothes, and in the white hats worn by the last generation of radicals. Originality of nature is sure to show itself in more ways than one. The mention of George Fox's suit of leather, or Pestalozzi's school name, "Harry Oddity," will at once suggest the remembrance that men who have in great things diverged from the beaten track, have frequently done so in small things likewise. Minor illustrations may be

¹ This was written before moustaches and beards had become general.

gathered in almost every circle. We believe that whoever will number up his reforming and rationalist acquaintances, will find among them more than the usual proportion of those who in dress or behaviour exhibit some degree of what the world calls eccentricity.

If it be a fact that men of revolutionary aims in politics or religion are commonly revolutionists in custom also, it is not less a fact that those whose office it is to uphold established arrangements in State and Church, are also those who most adhere to the social forms and observances bequeathed to us by past generations. Practices elsewhere extinct still linger about the head quarters of government. The monarch still gives assent to Acts of Parliament in the old French of the Normans; and Norman French terms are still used in law. Wigs, such as those we see depicted in old portraits, may yet be found on the heads of judges and barristers. The Beefeaters at the Tower wear the costume of Henry VIIIth's body guard. The University dress of the present year varies but little from that worn soon after the Reformation. The claret-coloured coat, knee-breeches, lace shirt-frills, white silk stockings, and buckled shoes, which once formed the usual attire of a gentleman, still survive as the court-dress. And it need scarcely be said that at *levées* and drawing-rooms, the ceremonies are prescribed with an exactness, and enforced with a rigour, not elsewhere to be found.

Can we consider these two series of coincidences as accidental and unmeaning? Must we not rather conclude that some necessary relationship obtains between them? Are there not such things as a constitutional conservatism, and a constitutional tendency to change? Is there not a class which clings to the old in all things: and another class so in love with progress as often to mistake novelty for improvement? Do we not find some men ready to bow to established authority of whatever kind; while others demand of every such authority

its reason, and reject it if it fails to justify itself? And must not the minds thus contrasted tend to become respectively conformist and nonconformist, not only in politics and religion, but in other things? Submission, whether to a government, to the dogmas of ecclesiastics, or to that code of behaviour which society at large has set up, is essentially of the same nature; and the sentiment which induces resistance to the despotism of rulers, civil or spiritual, likewise induces resistance to the despotism of the world's usages. All enactments, alike of the legislature, the consistory, and the saloon—all regulations, formal or virtual, have a common character: they are all limitations of men's freedom. "Do this—Refrain from that," are the blank forms into which they may severally be written; and throughout the understanding is that obedience will bring approbation here and paradise hereafter; while disobedience will entail imprisonment, or sending to Coventry, or eternal torments, as the case may be. And if restraints, however named, and through whatever apparatus of means exercised, are one in their action upon men, it must happen that those who are patient under one kind of restraint, are likely to be patient under another; and conversely, that those impatient of restraint in general, will, on the average, tend to show their impatience in all directions.

That Law, Religion, and Manners are thus related, and that they have in certain contrasted characteristics of men a common support and a common danger, will, however, be most clearly seen on discovering that they have a common origin. Little as from present appearances we should suppose it, we shall yet find that at first, the control of religion, the control of laws, and the control of manners, were all one control. Strange as it now seems, we believe it to be demonstrable that the rules of etiquette, the provisions of the statute-book, and the commands of the decalogue, have grown from the same root,

If we go far enough back into the ages of primeval Fetishism, it becomes manifest that originally Deity, Chief, and Master of the Ceremonies were identical. To make good these positions, and to show their bearing on what is to follow, it will be necessary here to traverse ground that is in part somewhat beaten, and at first sight irrelevant to our topic. We will pass over it as quickly as consists with the exigencies of the argument.

That the earliest social aggregations were ruled solely by the will of the strong man, few dispute.* That from the strong man proceeded not only Monarchy, but the conception of a God, few admit: much as Carlyle and others have said in evidence of it. If, however, those who are unable to believe this, will lay aside the ideas of God and man in which they have been educated, and study the aboriginal ideas of them, they will at least see some probability in the hypothesis. Let them remember that before experience had yet taught men to distinguish between the possible and the impossible; and while they were ready on the slightest suggestion to ascribe unknown powers to any object and make a fetish of it; their conceptions of humanity and its capacities were necessarily vague, and without specific limits. The man who by unusual strength, or cunning, achieved something that others had failed to achieve, or something which they did not understand, was considered by them as differing from themselves; and, as we see in the belief of some Polynesians that only their chiefs have souls, or in that of the ancient Peruvians that their nobles were divine by birth, the ascribed difference was apt to be not one of degree only, but one of kind. Let them remember next, how gross were the notions of God, or rather of gods, prevalent during the same era and afterwards—how concretely

gods were conceived as men of specific aspects dressed in specific ways—how their names were literally “the strong,” “the destroyer,” “the powerful one,”—how, according to the Scandinavian mythology, the “sacred duty of blood-revenge” was acted on by the gods themselves,—and how they were not only human in their vindictiveness, their cruelty, and their quarrels with each other, but were supposed to have amours on earth, and to consume the viands placed on their altars. Add to which, that in various mythologies, Greek, Scandinavian, and others, the oldest beings are giants: that according to a traditional genealogy the gods, demi-gods, and in some cases men, are descended from these after the human fashion; and that while in the East we hear of sons of God who saw the daughters of men that they were fair, the Teutonic myths tell of unions between the sons of men and the daughters of the gods. Let them remember, too, that at first the idea of death differed widely from that which we have; that there are still tribes who, on the decease of one of their number, attempt to make the corpse stand, and put food into its mouth: that the Peruvians had feasts at which the mummies of their dead Incas presided, when, as Prescott says, they paid attention “to these insensible remains as if they were instinct with life;” that among the Fijians it is believed that every enemy has to be killed twice; that the Eastern Pagans give extension and figure to the soul, and attribute to it all the same members, all the same substances, both solid and liquid, of which our bodies are composed; and that it is the custom among most barbarous races to bury food, weapons, and trinkets along with the dead body, under the manifest belief that it will presently need them. Lastly, let them remember that the other world, as originally conceived, is simply some distant part of this world—some Elysian fields, some happy hunting-ground, accessible even to the living, and to

* The few who disputed it would be right however. There are stages preceding that in which chiefly power becomes established; and in many cases it never does become established.

which, after death, men travel in anticipation of a life analogous in general character to that which they led before. Then, co-ordinating these general facts—the ascription of unknown powers to chiefs and medicine men; the belief in deities having human forms, passions, and behaviour; the imperfect comprehension of death as distinguished from life; and the proximity of the future abode to the present, both in position and character—let them reflect whether they do not almost unavoidably suggest the conclusion that the aboriginal god is the dead chief: the chief not dead in our sense, but gone away, carrying with him food and weapons to some rumoured region of plenty, some promised land, whither he had long intended to lead his followers, and whence he will presently return to fetch them. This hypothesis once entertained, is seen to harmonize with all primitive ideas and practices. The sons of the deified chief reigning after him, it necessarily happens that all early kings are held descendants of the gods; and the fact that alike in Assyria, Egypt, among the Jews, Phœnicians, and ancient Britons, kings' names were formed out of the names of the gods, is fully explained. The genesis of Polytheism out of Fetichism, by the successive migrations of the race of god-kings to the other world—a genesis illustrated in the Greek mythology, alike by the precise genealogy of the deities, and by the specifically-asserted apotheosis of the later ones—tends further to bear it out. It explains the fact that in the old creeds, as in the still extant creed of the Otaheitan, every family has its guardian spirit, who is supposed to be one of their departed relatives; and that they sacrifice to these as minor gods—a practice still pursued by the Chinese and even by the Russians. It is perfectly congruous with the Grecian myths concerning the wars of the Gods with the Titans and their final usurpation; and it similarly agrees with the fact that among the Teutonic gods proper was one Freir who came among

them by adoption, "but was born among the *Vanes*, a somewhat mysterious *other* dynasty of gods, who had been conquered and superseded by the stronger and more warlike Odin dynasty." It harmonizes, too, with the belief that there are different gods to different territories and nations, as there were different chiefs; that these gods contend for supremacy as chiefs do; and it gives meaning to the boast of neighbouring tribes—"Our god is greater than your god." It is confirmed by the notion universally current in early times, that the gods come from this other abode, in which they commonly live, and appear among men—speak to them, help them, punish them. And remembering this, it becomes manifest that the prayers put up by primitive peoples to their gods for aid in battle, are meant literally—that their gods are expected to come back from the other kingdom they are reigning over, and once more fight the old enemies they had before warred against so implacably; and it needs but to name the *Iliad*, to remind every one how thoroughly they believed the expectation fulfilled.¹

All government, then, being originally that of the strong man who has become a fetich by some manifestation of superiority, there arises, at his death—his supposed departure on a long—

¹ In this paragraph, which I have purposely left standing word for word as it did when republished with other essays in Dec. 1857, will be seen the outline of the ghost-theory. "Though there are references to fetichism as a primitive form of belief, and though at that time I had passively accepted the current theory (though never with satisfaction, for the origin of fetichism as then conceived seemed incomprehensible) yet the belief that inanimate objects may possess supernatural powers (which is what was then understood as fetichism) is not dwelt upon as a primitive belief. The one thing which is dwelt upon is the belief in the double of the dead man as continuing to exist, and as becoming an object of propitiation and eventually of worship. There are clearly marked out the rudiments which, when supplied with the mass of facts collected in the *Descriptive Sociology*, developed into the doctrine elaborated in Part I. of *The Principles of Sociology*.

projected expedition, in which he is accompanied by the slaves and concubines sacrificed at his tomb—there arises, then, the incipient division of religious from political control, of spiritual rule from civil. His son becomes deputed chief during his absence; his authority is cited as that by which his son acts; his vengeance is invoked on all who disobey his son; and his commands, as previously known or as asserted by his son, become the germ of a moral code: a fact we shall the more clearly perceive if we remember, that early moral codes inculcate mainly the virtues of the warrior, and the duty of exterminating some neighbouring tribe whose existence is an offence to the deity. From this point onwards, these two kinds of authority, at first complicated together as those of principal and agent, become slowly more and more distinct. As experience accumulates, and ideas of causation grow more precise, kings lose their supernatural attributes; and, instead of God king, become God-descended king. God appointed king, the Lord's anointed, the vicegerent of Heaven, ruler reigning by Divine right. The old theory, however, long clings to men in feeling, after it has disappeared in name; and "such divinity doth hedge a king," that even now, many, on first seeing one, feel a secret surprise at finding him an ordinary sample of humanity. The sacredness attaching to royalty attaches afterwards to its appended institutions to legislatures, to laws. Legal and illegal are synonymous with right and wrong; the authority of Parliament is held unlimited; and a lingering faith in governmental power continually generates unfounded hopes from its enactments. Political scepticism, however, having destroyed the divine *prestige* of royalty, goes on ever-increasing, and promises ultimately to reduce the State to a purely secular institution, whose regulations are limited in their sphere, and have no other authority than the general will. Meanwhile, the religious control has

been little by little separating itself from the civil, both in its essence and in its forms. While from the God-king of the barbarian have arisen in one direction secular rulers who, age by age, have been losing the sacred attributes men ascribed to them; there has arisen in another direction, the conception of a deity, who, at first human in all things, has been gradually losing human materiality, human form, human passions, human modes of action: until now, anthropomorphism has become a reproach. Along with this wide divergence in men's ideas of the divine and civil ruler has been taking place a corresponding divergence in the codes of conduct respectively proceeding from them. While the king was a deputy-god—a governor such as the Jews looked for in the Messiah—a governor considered, as the Czar still is, "our God upon earth,"—it, of course, followed that his commands were the supreme rules. But as men ceased to believe in his supernatural origin and nature, his commands ceased to be the highest; and there arose a distinction between the regulations made by him, and the regulations handed down from the old god-kings, who were rendered ever more sacred by time and the accumulation of myths. Hence came respectively, Law and Morality: the one growing ever more concrete, the other more abstract; the authority of the one ever on the decrease, that of the other ever on the increase; originally the same, but now placed daily in more marked antagonism. Simultaneously there has been going on a separation of the institutions administering these two codes of conduct. While they were yet one, of course Church and State were one: the king was arch-priest, not nominally, but really—alike the giver of new commands and the chief interpreter of the old commands; and the deputy-priests coming out of his family were thus simply expounders of the dictates of their ancestry: at first as recollected, and afterwards as ascertained by professed

interviews with them. This union between sacred and secular—which still existed practically during the middle ages, when the authority of kings was mixed up with the authority of the pope, when there were bishop-rulers having all the powers of feudal lords, and when priests punished by penances—has been, step by step, becoming less close. Though monarchs are still “defenders of the faith,” and ecclesiastical chiefs, they are but nominally such. Though bishops still have civil power, it is not what they once had. Protestantism shook loose the bonds of union; Dissent has long been busy in organizing a mechanism for religious control, wholly independent of law; in America, a separate organization for that purpose already exists; and if anything is to be hoped from the Anti-State-Church Association—or, as it has been newly named, “The Society for the Liberation of Religion from State Patronage and Control”—we shall presently have a separate organization here also. Thus, in authority, in essence, and in form, political and spiritual rule have been ever more widely diverging from the same root. That increasing division of labour which marks the progress of society in other things, marks it also in this separation of government into civil and religious; and if we observe how the morality which now forms the substance of religions in general, is beginning to be purified from the associated creeds, we may anticipate that this division will be ultimately carried much further.

Passing now to the third species of control—that of Manners—we shall find that this, too, while it had a common genesis with the others, has gradually come to have a distinct sphere and a special embodiment. Among early aggregations of men before yet social observances existed, the sole forms of courtesy known were the signs of submission to the strong man; as the sole law was his will, and the sole religion the awe of his supposed supernaturalness. Originally, ceremonies were modes

of behaviour to the god-king. Our commonest titles have been derived from his names. And all salutations were primarily worship paid to him. Let us trace out these truths in detail, beginning with titles.

The fact already noticed, that the names of early kings among divers races are formed by the addition of certain syllables to the names of their gods—which certain syllables, like our *Mac* and *Fitz*, probably mean “son of,” or “descended from”—at once gives meaning to the term *Father* as a divine title. And when we read, in Selden, that “the composition out of these names of Deities was not only proper to Kings: their Grandes and more honorable subjects” (no doubt members of the royal race) “had sometimes the like”; we see how the term *Father*, properly used by these also, and by their multiplying descendants, came to be a title used by the people in general. As bearing on this point, it is significant that in the least advanced country of Europe, where belief in the divine nature of the ruler still lingers, *Father* in this higher sense, is still a regal distinction. When, again, we remember how the divinity at first ascribed to kings was not a complimentary fiction but a supposed fact; and how, further, the celestial bodies were believed to be personages who once lived among men; we see that the appellations of oriental rulers, “Brother to the Sun,” &c., were probably once expressive of a genuine belief; and have simply, like many other things, continued in use after all meaning has gone out of them. We may infer, too, that the titles God, Lord, Divinity, were given to primitive rulers literally—that the *nostra divinitas* applied to the Roman emperors, and the various sacred designations that have been borne by monarchs, down to the still extant phrase, “Our Lord the King,” are the dead and dying forms of what were once living facts. From these names, God, Father, Lord, Divinity, originally belonging to the God-king,

and afterwards to God and the king, the derivation of our commonest titles of respect is traceable. There is reason to think that these titles were originally proper names. Not only do we see among the Egyptians, where Pharaoh was synonymous with king, and among the Romans, where to be Caesar meant to be Emperor, that the proper names of the greatest men were transferred to their successors, and so became class-names; but in the Scandinavian mythology we may trace a human title of honour up to the proper name of a divine personage. In Anglo-Saxon *bealdor*, or *baldor*, means *Lord*; and Balder is the name of the favourite of Odin's sons. How these names of honour became general is easily understood. The relatives of the primitive kings—the grandees described by Selden as having names formed on those of the gods, and shown by this to be members of the divine race—necessarily shared in the epithets descriptive of superhuman relationships and nature. Their ever-multiplying offspring inheriting these, gradually rendered them comparatively common. And then they came to be applied to every man of power: partly from the fact that, in those early days when men conceived divinity simply as a stronger kind of humanity, great persons could be called by divine epithets with but little exaggeration; partly from the fact that the unusually potent were apt to be considered as unrecognised or illegitimate descendants of “the strong, the destroyer, the powerful one”; and partly, also, from compliment and the desire to propitiate. As superstition diminished, this last became the sole cause. And if we remember that it is the nature of compliment, to attribute more than is due—that in the ever widening application of “esquire,” in the perpetual repetition of “your honour” by the fawning Irishman, and in the use of the name “gentleman” to any coal-heaver or dustman by the lower classes of London, we have current examples of the depreciation of titles consequent on

compliment—and that in barbarous times, when the wish to propitiate was stronger than now, this effect must have been greater; we shall see that there naturally arose from this cause an extensive misuse of all early distinctions. Hence the facts that the Jews called Herod a god; that *Ætther*, in its higher sense, was a term used among them by servants to masters; that *Lord* was applicable to any person of worth and power. Hence, too, the fact that, in the later periods of the Roman Empire, every man saluted his neighbour as *Dominus* or *Rev.* But it is in the titles of the middle ages, and in the growth of our modern ones out of them, that the process is most clearly seen. *Herr*, *Don*, *Signor*, *Seigneur*, *Señor*, were all originally descriptive names of rulers. By the complimentary use of these names to all who could, on any pretence, be supposed to merit them, and by successive descents to still lower grades, they have come to be common forms of address. At first the phrase in which a self-acclaimed his despotic chief, *mein Herr* is now familiarly applied in Germany to ordinary people. The Spanish title *Don*, once proper to noblemen and gentlemen only, is now accorded to all classes. So, too, it is with *Signor* in Italy. *Seigneur* and *Monseigneur*, by contraction in *Sieur* and *Monsieur*, have produced the term of respect claimed by every Frenchman. And whether *Sire* be or be not a like contraction of *Signor*, it is clear that, as it was borne by sundry of the ancient feudal lords of France, who, as Selden says, “affected rather to be stiled by the name of *Sire* than Baron, as *Le Sire de Montmorency*, *Le Sire de Beaujeu*, and the like,” and as it has been commonly used to monarchs, our word *Sir*, which is derived from it, originally meant lord or king. Thus, too, it is with feminine titles. *Lady*, which, according to Home Tooke, means *exalted*, and was at first given only to the few, is now given to all women of education. *Dame*, once an honourable name to which, in

old books, we find the epithets of "high-born" and "stately" affixed, has now, by repeated widenings of its application, become relatively a term of contempt. And if we trace the compound of this, *ma Dame*, through its contractions—*Madam*, *ma'am*, *mam*, *mum*, we find that the "Yes'm" of Sally to her mistress is originally equivalent to "Yes, my exalted," or "Yes, your highness." Throughout, therefore, the genesis of words of honour has been the same. Just as with the Jews and with the Romans, has it been with the modern Europeans. Tracing these everyday names to their primitive significations of *lord* and *king*, and remembering that in aboriginal societies these were applied only to the gods and their descendants, we arrive at the conclusion that our familiar *Sir* and *Monsieur* are, in their primary and expanded meanings, terms of adoration.

Further to illustrate this gradual depreciation of titles, and to confirm the inference drawn, it may be well to notice in passing, that the oldest of them have, as might be expected, been depreciated to the greatest extent. Thus, *Master*—a word proved by its derivation, and by the similarity of the connate words in other languages (Fr., *maitre* for *maître*; Dutch, *meester*; Dan., *mester*; Ger., *meister*) to have been one of the earliest in use for expressing lordship—has now become applicable to children only, and, under the modification of "Mister," to persons next above the labourer. Again, knighthood, the oldest kind of dignity, is also the lowest; and Knight Bachelor, which is the lowest order of knighthood, is more ancient than any other of the orders. Similarly, too, with the peerage: Baron is alike the earliest and least elevated of its divisions. This continual degradation of all names of honour has, from time to time, made it requisite to introduce new ones having the distinguishing effects which the originals had lost by generality of use; just as our habit of misapplying superlatives has, by gradually destroying their force, entailed

the need for fresh ones. And if, within the last thousand years, this process has worked results thus marked, we may readily conceive how, during previous thousands, the titles of gods and demi-gods came to be used to all persons exercising power; as they have since come to be used to persons of respectability.

If from names of honour we turn to phrases of honour, we find similar facts. The oriental styles of address, applied to ordinary people—"I am your slave," "All I have is yours," "I am your sacrifice"—attribute to the individual spoken to the same greatness that *Monsieur* and *My Lord* do: they ascribe to him the character of an all-powerful ruler, so immeasurably superior to the speaker as to be his owner. So, likewise, with the Polish expressions of respect—"I throw myself under your feet," "I kiss your feet." In our now meaningless subscription to a formal letter—"Your most obedient servant"—the same thing is visible. Nay, even in the familiar signature "Yours faithfully," the "yours," if interpreted as originally meant, is the expression of a slave to his master. All these dead forms were once living embodiments of fact; were primarily the genuine indications of that submission to authority which they verbally assert; were afterwards naturally used by the weak and cowardly to propitiate those above them; gradually grew to be considered the due of such; and, by a continually wider misuse, have lost their meanings, as *Sir* and *Master* have done. That, like titles, they were in the beginning used only to the God-king, is indicated by the fact that, like titles, they were subsequently used in common to God and the king. Religious worship has ever largely consisted of professions of obedience, of being God's servants, of belonging to him to do what he will with. Like titles, therefore, these common phrases of honour had a devotional origin. Perhaps, however, it is in the use of the word *you* as a singular pronoun

that the popularizing of what were once supreme distinctions is most markedly illustrated. This addressing of a single individual in the plural, was originally an honour given only to the highest — was the reciprocal of the imperial “we” assumed by such. Yet now, by being applied to successively lower and lower classes, it has become all but universal. Only by one sect of Christians, and in a few secluded districts, is the primitive *thou* still used. And the *you*, in becoming common to all ranks, has simultaneously lost every vestige of the distinction once attaching to it.

But the genesis of Manners out of forms of allegiance and worship, is above all shown in modes of salutation. Note first the significance of the word. Among the Romans, the *salutatio* was a daily homage paid by clients and inferiors to their superiors. This was alike the case with civilians and in the army. The very derivation of our word, therefore, is suggestive of submission. Passing to particular forms of obeisance (mark the word again), let us begin with the Eastern one of baring the feet. This was, primarily, a mark of reverence, alike to a god and a king. The act of Moses before the burning bush, and the practice of Mahometans, who are sworn on the Koran with their shoes off, exemplify the one employment of it; the custom of the Persians, who remove their shoes on entering the presence of their monarch, exemplifies the other. As usual, however, this homage, paid next to inferior rulers, has descended from grade to grade. In India it is a common mark of respect; the lower orders of Turks never enter the presence of their superiors but in their stockings; and in Japan, this baring of the feet is an ordinary salutation of man to man. Take another case. Selden, describing the ceremonies of the Romans, says:—“For whereas it was usuall either to kiss the Images of their Gods, or, adoring them, to stand somewhat off before them, solemnly moving the right hand to the lips, and then, casting it as

if they had cast kisses, to turne the body on the same hand (which was the right forme of Adoration), it grew also by custom, first that the Emperors, being next to Deities, and by some accounted as Deities, had the like done to them in acknowledgment of their Greatness.” If, now, we call to mind the awkward salute of a village school-boy, made by putting his open hand up to his face and describing a semicircle with his forearm: and if we remember that the salute thus used as a form of reverence in country districts, is most likely a remnant of the feudal times; we shall see reason for thinking that our common wave of the hand to a friend across the street, represents what was primarily a devotional act.

Similarly have originated all forms of respect depending upon inclinations of the body. Entire prostration is the aboriginal sign of submission. The passage of Scripture—“Thou hast put all under his feet,” and that other one, so suggestive in its anthropomorphism—“The Lord said unto my Lord, sit thou at my right hand, until I make thine enemies thy footstool,” imply, what the Assyrian sculptures bear out, that it was the practice of the ancient god-kings of the East to trample on the conquered. As there are existing savages who signify submission by placing the neck under the foot of the person submitted to, it becomes obvious that all prostration, especially when accompanied by kissing the foot, expressed a willingness to be trodden upon — was an attempt to mitigate wrath by saying, in signs, “Tread on me if you will.” Remembering, too, that kissing the foot, as of the Pope and of a saint’s statue, still continues in Europe to be a mark of extreme reverence; that prostration to feudal lords was once general, and that its disappearance must have taken place, not abruptly, but by gradual change into something else; we have ground for deriving from these deepest of humiliations all inclinations of respect: especially as the transition is traceable. The reverence of a

Russian serf, who bends his head to the ground, and the salaam of the Hindoo, are abridged prostrations; a bow is a short salaam; a nod is a short bow. Should any hesitate to admit this conclusion, then perhaps, on being reminded that the lowest of these obeisances are common where the submission is most abject; that among ourselves the profundity of the bow marks the amount of respect; and lastly, that the bow is even now used devotionally in our churches—by Catholics to their altars, and by Protestants at the name of Christ—they will see sufficient reason for thinking that this salutation also was originally worship.

The same may be said, too, of the curtsy, or courtesy, as it is otherwise written. Its derivation from *courtoisie*, courteousness, that is, behaviour like that at court, at once shows that it was primarily the reverence paid to a monarch. And if we call to mind that falling on the knees, or on one knee, has been a common obeisance of subjects to rulers: that in ancient manuscripts and tapestries, servants are depicted as assuming this attitude while offering the dishes to their masters at table; and that this same attitude is assumed towards our own queen at every presentation: we may infer, what the character of the curtsy itself suggests, that it is an abridged act of kneeling. As the word has been contracted from *courtoisie* into curtsy; so the motion has been contracted from a placing of the knee on the floor, to a lowering of the knee towards the floor. Moreover, when we compare the curtsy of a lady with the awkward one a peasant girl makes, which, if continued, would bring her down on both knees, we may see in this last a remnant of that greater reverence required of serfs. And when, from considering that simple kneeling of the West, still represented by the curtsy, we pass Eastward, and note the attitude of the Mahomedan worshipper, who not only kneels but bows his head to the ground, we may infer that the curtsy

also is an evanescent form of the aboriginal prostration. In further evidence of this it may be remarked, that there has but recently disappeared from the salutations of men, an action having the same proximate derivation with the curtsy. That backward sweep of the right foot with which the conventional stage-sailor accompanies his bow—a movement which prevailed generally in past generations, when “a bow and a scrape” went together, and which, within the memory of living persons, was made by boys to their master when entering school, with the effect of wearing a hole in the floor—is pretty clearly a preliminary to going on one knee. A motion so ungainly could never have been intentionally introduced; even if the artificial introduction of obeisances were possible. Hence we must regard it as the remnant of something antecedent: and that this something antecedent was humiliating may be inferred from the phrase, “scraping an acquaintance”; which, being used to denote the gaining of favour by obsequiousness, implies that the scrape was considered a mark of servility—that is, of servile position.

Consider, again, the uncovering of the head. Almost everywhere this has been a sign of reverence, alike in temples and before potentates; and it yet preserves among us some of its original meaning. Whether it rains, hails, or shines, you must keep your head bare while speaking to the monarch: and no one may keep his hat on in a place of worship. As usual, however, this ceremony, at first a submission to gods and kings, has become in process of time a common civility. Once an acknowledgment of another's unlimited supremacy, the removal of the hat is now a salute accorded to very ordinary persons; and that uncovering originally reserved for entrance into “the house of God” or the residence of the ruler, good manners now dictates on entrance into a labourer's cottage.

Standing, too, as a mark of respect,

has undergone like extensions in its application. Shown, by the practice in our churches, to be intermediate between the humiliation signified by kneeling and the self-respect which sitting implies, and used at courts as a form of homage when more active demonstrations of it have been made, this posture is now employed in daily life to show consideration; as seen alike in the attitude of a servant before a master, and in that rising which politeness prescribes on the entrance of a visitor.

Many other threads of evidence might have been woven into our argument. As, for example, the significant fact, that if we trace back our still existing law of primogeniture—if we consider it as displayed by Scottish clans, in which not only ownership but government devolved from the beginning on the eldest son of the eldest—if we look further back, and observe that the old titles of lordship, *Signor*, *Seigneur*, *Señor*, *Sire*, *Sieur*, all originally mean senior, or elder—if we go Eastward, and find that *Sheikh* has a like derivation, and that the Oriental names for priests, as *Pir*, for instance, are literally interpreted *old man*—if we note in Hebrew records how far back dates the ascribed superiority of the first-born, how great the authority of elders, and how sacred the memory of patriarchs—and if, then, we remember that among divine titles are “Ancient of Days,” and “Father of Gods and men;”—we see how completely these facts harmonize with the hypothesis, that the aboriginal god is the first man sufficiently great to become a tradition, the earliest whose power and deeds made him remembered; that hence antiquity unavoidably became associated with superiority, and age with nearness in blood to “the powerful one”; that so there naturally arose that domination of the eldest which characterizes the history of all the higher races, and that theory of human degeneracy which even yet survives. We might further dwell on the facts, that *Lord* signifies high-born, or, as the same root gives a word

meaning heaven, possibly heaven-born; that, before it became common, *Sir* or *Sire*, as well as *Father*, was the distinction of a priest; that *worship*, originally worth-ship—a term of respect that has been used commonly, as well as to magistrates—is also our term for the act of attributing greatness or worth to the Deity; so that to ascribe worth-ship to a man is to worship him. We might make much of the evidence that all early governments are more or less distinctly theocratic; and that among ancient Eastern nations even the commonest forms and customs had religious sanctions. We might enforce our argument respecting the derivation of ceremonies, by tracing out the aboriginal obeisance made by putting dust on the head, which symbolizes putting the head in the dust; by affiliating the practice found in certain tribes, of doing another honour by presenting him with a portion of hair torn from the head—an act which seems tantamount to saying, “I am your slave”; by investigating the Oriental custom of giving to a visitor any object he speaks of admiringly, which is pretty clearly a carrying out of the compliment, “All I have is yours.”

Without enlarging, however, on these and minor facts, we venture to think that the evidence assigned is sufficient. Had the proofs been few, or of one kind, little faith could have been placed in the inference. But numerous as they are, alike in the case of titles, in that of complimentary phrases, and in that of salutes—similar and simultaneous, too, as the process of depreciation has been in all of these; the evidences become strong by mutual confirmation. And when we recollect, also, that not only have the results of this process been visible in various nations and in all times, but that they are occurring among ourselves at the present moment, and that the causes assigned for previous depreciations may be seen daily working out others—when we recollect this, it becomes scarcely possible to doubt that

the process has been as alleged; and that our ordinary words, acts, and phrases of civility originally expressed submission to another's omnipotence.

Thus the general doctrine, that all kinds of government exercised over men were at first one government—that the political, the religious, and the ceremonial forms of control are divergent branches of a general and once indivisible control—begins to look tenable. When, with the above facts fresh in mind, we read that in Eastern traditions Nimrod, among others, figures in all the characters of hero, king, and divinity—when we turn to the sculptures exhumed by Mr. Layard, and contemplating in them the effigies of kings driving over enemies, and adored by prostrate slaves, then observe how their actions correspond to the primitive names for gods, “the strong,” “the destroyer,” “the powerful one”—and when, lastly, we discover that among races of men still living, there are current superstitions analogous to those which old records and old buildings indicate; we begin to realize the probability of the hypothesis that has been set forth. Representing to ourselves the conquering chief as figured in ancient myths, and poems, and ruins; we may see that all rules of conduct spring from his will. Alike legislator and judge, quarrels among his subjects are decided by him; and his words become the Law. Awe of him is the incipient Religion; and his maxims furnish his first precepts. Submission is made to him in the forms he prescribes; and these give birth to Manners. From the first, time develops political allegiance and the administration of justice; from the second, the worship of a being whose personality becomes ever more vague, and the inculcation of precepts ever more abstract; from the third, forms and names of honour and the rules of etiquette. In conformity with the law of evolution of all organized bodies, that general functions are gradually separated into the special functions constituting them, there have grown up

in the social organism for the better performance of the governmental office, an apparatus of law-courts, judges, and barristers; a national church, with its bishops and priests; and a system of caste, titles, and ceremonies, administered by society at large. By the first, overt aggressions are cognized and punished; by the second, the disposition to commit such aggressions is in some degree checked; by the third, those minor breaches of good conduct which the others do not notice, are denounced and chastised. Law and Religion control behaviour in its essentials; Manners control it in its details. For regulating those daily actions which are too numerous and too unimportant to be officially directed there comes into play this subtler set of restraints. And when we consider what these restraints are—when we analyze the words, and phrases, and movements employed, we see that in origin as in effect, the system is a setting up of temporary governments between all men who come in contact, for the purpose of better managing the intercourse between them.

From the proposition, that these several kinds of government are essentially one, both in genesis and function, may be deduced several important corollaries, directly bearing on our special topic.

Let us first notice, that there is not only a common origin and office for all forms of rule, but a common necessity for them. The aboriginal man, coming fresh from the killing of bears and from lying in ambush for his enemy, has, by the necessities of his condition, a nature requiring to be curbed in its every impulse. Alike in war and in the chase, his daily discipline has been that of sacrificing other creatures to his own needs and passions. His character, bequeathed to him by ancestors who led similar lives, is moulded by this discipline—is fitted to this existence. The unlimited selfishness, the love of inflicting pain, the bloodthirstiness, thus kept active, he brings with him into the social

state. These dispositions put him in constant danger of conflict with his equally savage neighbour. In small things as in great, in words as in deeds, he is aggressive; and is hourly liable to the aggressions of others like natured. Only, therefore, by rigorous control exercised over all actions, can the primitive unions of men be maintained. There must be a ruler strong, remorseless, and of indomitable will; there must be a creed terrible in its threats to the disobedient; there must be servile submission of inferiors to superiors. The law must be cruel; the religion must be stern; the ceremonies must be strict. The co-ordinate necessity for these several kinds of restraint might be largely illustrated from history were there space. Suffice it to point out that where the civil power has been weak, the multiplication of thieves, assassins, and banditti, has indicated the approach of social dissolution; that when, from the corruptness of its ministry, religion has lost its influence, as it did just before the Flagellants appeared, the State has been endangered; and that the disregard of established social observances has ever been an accompaniment of political revolutions. Who ever doubts the necessity for a government of manners proportionate in strength to the co-existing political and religious governments, will be convinced on calling to mind that until recently even elaborate codes of behaviour failed to keep gentlemen from quarrelling in the streets and fighting duels in taverns; and on remembering that even now people exhibit at the doors of a theatre, where there is no ceremonial law to rule them, an aggressiveness which would produce confusion if carried into social intercourse.

As might be expected, we find that, having a common origin and like general functions, these several controlling agencies act during each era with similar degrees of vigour. Under the Chinese despotism, stringent and multitudinous in its edicts and harsh in

the enforcement of them, and associated with which there is an equally stern domestic despotism exercised by the eldest surviving male of the family, there exists a system of observances alike complicated and rigid. There is a tribunal of ceremonies. Previous to presentation at court, ambassadors pass many days in practising the required forms. Social intercourse is cumbered by endless compliments and obeisances. Class distinctions are strongly marked by badges. And if there wants a definite measure of the respect paid to social ordinances, we have it in the torture to which ladies submit in having their feet crushed. In India, and indeed throughout the East, there exists a like connexion between the pitiless tyranny of rulers, the dread terrors of immemorial creeds, and the rigid restraint of unchangeable customs. Caste regulations continue still unalterable; the fashions of clothes and furniture have remained the same for ages; suttees are so ancient as to be mentioned by Strabo and Diodorus Siculus; justice is still administered at the palace-gates as of old; in short, "every usage is a precept of religion and a maxim of jurisprudence." A similar relationship of phenomena was exhibited in Europe during the Middle Ages. While its governments, general and local, were despotic, while the Church was unshorn of its power, while the criminal code was full of horrors and the hell of the popular creed full of terrors, the rules of behaviour were both more numerous and more carefully conformed to than now. Differences of dress marked divisions of rank. Men were limited by law to certain widths of shoe-toes; and no one below a specified degree might wear a cloak less than so many inches long. The symbols on banners and shields were carefully attended to. Heraldry was an important branch of knowledge. Precedence was strictly insisted on. And those various salutes of which we now use the abridgments, were gone through in full. Even during

our own last century, with its corrupt House of Commons and little-curbed monarchs, we may mark a correspondence of social formalities. Gentlemen were still distinguished from lower classes by dress; and children addressed their parents as *Sir* and *Madam*.

A further corollary naturally following this last, and almost, indeed, forming part of it, is, that these several kinds of government decrease in stringency at the same rate. Simultaneously with the decline in the influence of priesthoods, and in the fear of eternal torments—simultaneously with the mitigation of political tyranny, the growth of popular power, and the amelioration of criminal codes; has taken place that diminution of formalities and that fading of distinctive marks, now so observable. Looking at home, we may note that there is less attention to precedence than there used to be. No one in our day ends an interview with the phrase “your humble servant.” The employment of the word *Sir*, once general in social intercourse, is at present considered bad breeding; and on the occasions calling for them, it is held vulgar to use the words “Your Majesty,” or “Your Royal Highness,” more than once in a conversation. People no longer formally drink one another’s healths: and even the taking wine with one another at dinner has ceased to be fashionable. It is remarked of us by foreigners, that we take off our hats less than any other nation in Europe—a remark which should be coupled with the other, that we are the freest nation in Europe. As already implied, this association of facts is not accidental. These modes of address and titles and obeisances, bearing about them, as they all do, something of that servility which marks their origin, become distasteful in proportion as men become more independent themselves, and sympathize more with the independence of others. The feeling which makes the modern gentleman tell the labourer standing bareheaded before him to put on his hat—the feeling which gives us a

dislike to those who cringe and fawn—the feeling which makes us alike assert our own dignity and respect that of others—the feeling which thus leads us more and more to discountenance forms and names which confess inferiority and submission; is the same feeling which resists despotic power and inaugurates popular government, denies the authority of the Church, and establishes the right of private judgment.

A fourth fact, akin to the foregoing, is, that with decreasing coerciveness in these several kinds of government, their respective forms lose their meanings. The same process which has made our monarch put forth as his own acts what are the acts of ministers approved by the people, and has thus changed him from master into agent—the same process which, making attendance at church very much a matter of respectability, has done away with the telling of beads, the calling on saints, and the performance of penances; is a process by which titles and ceremonies that once had a meaning and a power have been reduced to empty forms. Coats of arms which served to distinguish men in battle, now figure on the carriage panels of retired merchants. Once a badge of high military rank, the shoulder-knot has become, on the modern footman, a mark of servitude. The name *Banneret*, which originally marked a partially-created Baron—a Baron who had passed his military “little go”—is now, under the modification of *Baronet*, applicable to any one favoured by wealth or interest or party feeling. Knighthood has so far ceased to be an honour, that men honour themselves by declining it. The military dignity *Esquier* has, in the modern *Esquire*, become a wholly un-military affix.

But perhaps it is in that class of social observances comprehended under the term *Fashion* (which we must here discuss parenthetically) that this process is seen with the greatest distinctness. As contrasted with *Manners*, which dictate our minor acts in relation to

other persons, Fashion dictates our minor acts in relation to ourselves. While the one prescribes that part of our deportment which directly affects our neighbours; the other prescribes that part of our deportment which is primarily personal, and in which our neighbours are concerned only as spectators. Thus distinguished as they are, however, the two have a common source. For while, as we have shown, Manners originate by imitation of the behaviour pursued *towards* the great; Fashion originates by imitation of the behaviour *of* the great. While the one has its derivation in the titles, phrases, and salutes used *to* those in power; the other is derived from the habits and appearances exhibited *by* those in power. The Carib mother who squeezes her child's head into a shape like that of the chief; the young savage who makes marks on himself similar to the scars carried by the warriors of his tribe; the Highlander who adopts the plaid worn by the head of his clan; the courtiers who affect greyness, or limp, or cover their necks, in imitation of their king, and the people who ape the courtiers; are alike acting under a kind of government connate with that of Manners, and, like it too, primarily beneficial. For notwithstanding the numberless absurdities into which this copying has led people, from nose-rings to ear-rings, from painted faces to beauty spots, from shaven heads to powdered wigs, from filed teeth and stained nails to bell-girdles, peaked shoes, and breeches stuffed with bran, it must yet be concluded that as the men of will, intelligence, and originality, who have got to the top, are, on the average, more likely to show judgment in their habits and tastes than the mass, the imitation of such is advantageous. By and by, however, Fashion, decaying like these other forms of rule, almost wholly ceases to be an imitation of the best, and becomes an imitation of quite other than the best. As those who take orders are not those having a special fitness for the priestly office, but those

who hope to get livings; as legislators and public functionaries do not become such by virtue of their political insight and power to rule, but by virtue of birth, acreage, and class influence; so, the self-elected clique who set the fashion, do this, not by force of nature, by intellect, by higher worth or better taste, but solely by unchecked assumption. Among the initiated are to be found neither the noblest in rank, the chief in power, the best cultured, the most refined, nor those of greatest genius, wit, or beauty; and their reunions, so far from being superior to others, are noted for their inanity. Yet, by the example of these sham great, and not by that of the truly great, does society at large now regulate its habits, its dress, its small usages. As a natural consequence, these have generally little of that suitableness which the theory of fashion implies they should have. Instead of a progress towards greater elegance and convenience, which might be expected to occur did people copy the ways of the really best, or follow their own ideas of propriety, we have a reign of mere whim, of unreason, of change for the sake of change, of wanton oscillations from either extreme to the other. And so life *à la mode*, instead of being life conducted in the most rational manner, is life regulated by spendthrifts and idlers, milliners and tailors, dandies and silly women.

To these several corollaries—that the various orders of control exercised over men have a common origin and a common function, are called out by co-ordinate necessities and co-exist in like stringency, decline together and decay together it now only remains to add that they simultaneously become less needful. The social discipline which has already wrought out great changes in men, must go on eventually to work out greater ones. That daily curbing of the lower nature and culture of the higher, which out of cannibals and devil-worshippers has evolved philanthropists, lovers of peace, and haters of

superstition, may be expected to evolve out of these, men as much superior to them as they are to their progenitors. The causes that have produced past modifications are still in action; must continue in action as long as there exists any incongruity between men's desires and the requirements of the social state; and must eventually make them organically fit for the social state. As it is now needless to forbid man-eating, so will it ultimately become needless to forbid murder, theft, and the minor offences of our criminal code. Along with growth of human nature into harmony with the moral law, there will go decreasing need for judges and statute-books; when the right course has become the course spontaneously chosen, prospects of future reward or punishment will not be wanted as incentives; and when due regard for others has become instinctive, there will need no code of ceremonies to say how behaviour shall be regulated.

Thus, then, may be recognized the meaning of those eccentricities of reformers which we set out by describing. They are not accidental; they are not mere personal caprices. They are inevitable results of the law of relationship above illustrated. That community of genesis, function, and decay which all forms of restraint exhibit, is simply the obverse of the fact at first pointed out, that they have in two sentiments of human nature a common preserver and a common destroyer. Awe of power originates and cherishes them all; love of freedom undermines and weakens them all. The one defends despotism and asserts the supremacy of laws, adheres to old creeds and supports ecclesiastical authority, pays respect to titles and conserves forms; the other, putting rectitude above legality, achieves periodical instalments of political liberty, inaugurates Protestantism and works out its consequences, ignores the senseless dictates of fashion and emancipates men from dead customs. To the true

reformer no institution is sacred, no belief above criticism. Everything shall conform itself to equity and reason; nothing shall be saved by its prestige. Conceding to each man liberty to pursue his own ends and satisfy his own tastes, he demands for himself like liberty; and consents to no restrictions on this, save those which other men's equal claims involve. No matter whether it be an ordinance of one man, or an ordinance of all men, if it trenches on his legitimate sphere of action, he denies its validity. The tyranny that would impose on him a particular style of dress and a set mode of behaviour, he resists equally with the tyranny that would limit his buyings and sellings, or dictate his creed. Whether the regulation be formally made by a legislature, or informally made by society at large—whether the penalty for disobedience be imprisonment, or frowns and social ostracism, he sees to be a question of no moment. He will utter his belief notwithstanding the threatened punishment; he will break conventions spite of the petty persecutions that will be visited on him. Show him that his actions are inimical to his fellow-men, and he will pause. Prove that he is disregarding their legitimate claims, and he will alter his course. But until you do this—until you demonstrate that his proceedings are essentially inconvenient or inelegant, essentially irrational, unjust, or ungenerous, he will persevere.

Some, indeed, argue that his conduct is unjust and ungenerous. They say that he has no right to annoy other people by his whims; that the gentleman to whom his letter comes with no "Esq." appended to the address, and the lady whose evening party he enters with gloveless hands, are vexed at what they consider his want of respect or want of breeding; that thus his eccentricities cannot be indulged save at the expense of his neighbours' feelings; and that hence his nonconformity is in plain terms selfishness.

He answers that this position, if logi-

cally developed, would deprive men of all liberty whatever. Each must conform all his acts to the public taste, and not his own. The public taste on every point having been once ascertained, men's habits must thenceforth remain for ever fixed; seeing that no man can adopt other habits without sinning against the public taste, and giving people disagreeable feelings. Consequently, be it an era of pig-tails or high-heeled shoes, of starched ruffs or trunk-hose, all must continue to wear pig-tails, high-heeled shoes, starched ruffs, or trunk-hose to the crack of doom.

If it be still urged that he is not justified in breaking through others' forms that he may establish his own, and so sacrificing the wishes of many to the wishes of one, he replies that all religious and political changes might be negated on like grounds. He asks whether Luther's sayings and doings were not extremely offensive to the mass of his cotemporaries; whether the resistance of Hampden was not disgusting to the time-servers around him; whether every reformer has not shocked men's prejudices and given immense displeasure by the opinions he uttered. The affirmative answer he follows up by demanding what right the reformer has, then, to utter these opinions—whether he is not sacrificing the feelings of many to the feelings of one; and so he proves that, to be consistent, his antagonists must condemn not only all nonconformity in actions, but all nonconformity in beliefs.

His antagonists rejoice that *his* position, too, may be pushed to an absurdity. They argue that if a man may offend by the disregard of some forms, he may as legitimately do so by the disregard of all; and they inquire—Why should he not go out to dinner in a dirty shirt, and with an unshorn chin? Why should he not spit on the drawing-room carpet, and stretch his heels up to the mantle-shelf?

The convention-breaker answers, that to ask this, implies a confounding of

two widely-different classes of actions—the actions which are *essentially* displeasurable to those around, with the actions which are but *incidentally* displeasurable to them. He whose skin is so unclean as to offend the nostrils of his neighbours, or he who talks so loudly as to disturb a whole room, may be justly complained of, and rightly excluded by society from its assemblies. But he who presents himself in a surtout in place of a dress-coat, or in brown trousers instead of black, gives offence not to men's senses, or their innate tastes, but merely to their bigotry of convention. It cannot be said that his costume is less elegant or less intrinsically appropriate than the one prescribed; seeing that a few hours earlier in the day it is admired. It is the implied rebellion, therefore, which annoys. How little the cause of quarrel has to do with the dress itself, is seen in the fact that a century ago black clothes would have been thought preposterous for hours of recreation, and that a few years hence some now forbidden style may be nearer the requirements of Fashion than the present one. Thus the reformer explains that it is not against the natural restraints, but against the artificial ones, that he protests; and that manifestly the fire of angry glances which he has to bear, is poured upon him because he will not bow down to the idol which society has set up.

Should he be asked how we are to distinguish between conduct which is in itself disagreeable to others, and conduct which is disagreeable by its implication, he answers, that they will distinguish themselves, if men will let them. Actions intrinsically repugnant will ever be frowned upon, and must ever remain as exceptional as now. Actions not intrinsically repugnant will establish themselves, as proper. No relaxation of customs will introduce the practice of going to a party in muddy boots, and with unwashed hands; for the dislike of dirt would continue were Fashion abolished to-morrow. That love of approbation

which now makes people solicitous to be in *règle* would still exist—would still make them careful of their personal appearance—would still induce them to seek admiration by making themselves ornamental—would still cause them to respect the natural laws of good behaviour, as they now do the artificial laws. The change would simply be from a repulsive monotony to a picturesque variety. And if there be any regulations respecting which it is uncertain whether they are based on reality or on convention, experiment will soon decide, if due scope be allowed.

When at length the controversy comes round, as controversies often do, to the point whence it started, and the "party of order" repeat their charge against the rebel, that he is sacrificing the feelings of others to gratify his own wilfulness, he replies once for all that they cheat themselves by mis-statements. He accuses them of being so despotic, that, not content with being masters over their own ways and habits, they would be masters over his also, and grumble because he will not let them. He merely asks the same freedom which they exercise; they, however, propose to regulate his course as well as their own—to cut and clip his mode of life into agreement with their approved pattern, and then charge him with wilfulness and selfishness, because he does not quietly submit! He warns them that he shall resist, nevertheless; and that he shall do so, not only for the assertion of his own independence, but for their good. He tells them that they are slaves, and know it not; that they are shackled, and kiss their chains; that they have lived all their days in prison, and complain because the walls are being broken down. He says he must persevere; however, with a view to his own release; and, in spite of their present expostulations, he prophesies that when they have recovered from the fight which the prospect of freedom produces, they will thank him for aiding in their emancipation.

Unamiable as seems this find-fault mood, offensive as is this defiant attitude, we must beware of overlooking the truths enunciated, in dislike of the advocacy. It is an unfortunate hindrance to all innovation, that in virtue of their very function, the innovators stand in a position of antagonism; and the disagreeable manners, and sayings, and doings, which this antagonism generates, are commonly associated with the doctrines promulgated. Quite forgetting that whether the thing attacked be good or bad, the combative spirit is necessarily repulsive; and quite forgetting that the toleration of abuses seems amiable merely from its passivity; the mass of men contract a bias against advanced views, and in favour of stationary ones, from intercourse with their respective adherents. "Conservatism," as Emerson says, "is debonair and social; reform is individual and imperious." And this remains true, however vicious the system conserved, however righteous the reform to be effected. Nay, the indignation of the purists is usually extreme in proportion as the evils to be got rid of are great. The more urgent the required change, the more intemperate is the vehemence of its promoters. Let no one, then, confound with the principles of this social nonconformity the acerbity and the disagreeable self-assertion of those who first display it.

The most plausible objection raised against resistance to conventions, is grounded on its impolicy, considered even from the progressist's point of view. It is urged by many of the more liberal and intelligent—usually those who have themselves shown some independence of behaviour in earlier days—that to rebel in these small matters is to destroy your own power of helping on reform in greater matters. "If you show yourself eccentric in manners or dress, the world," they say, "will not listen to you. You will be considered as crotchety, and impracticable. The opinions you express on important subjects, which

might have been treated with respect had you conformed on minor points will now inevitably be put down among your singularities, and thus, by dissenting in trifles, you disable yourself from spreading dissent in essentials.

Only nothing, as we pass, that this is one of those anticipations which bring about their own fulfilment—that it is because most who disapprove these conventions do not show their disapproval, that the few who do show it look eccentric—and that did all act out their convictions, no such uiment is the above would have force. nothing, this as we pass, we go on to reply that these social ustruments are not small evils but among the greatest. I stimulate their sum total, and we doubt whether they would not exceed most others. Could we add up the trouble, the cost, the jealousies, vexations, misunderstandings, the loss of time and the loss of pleasure which these conventions entail we should perhaps come to the conclusion that the tyranny of Mrs Grundy is worse than any other tyranny. Let us look at a few of its hurtful results, beginning with those of minor importance.

It produces extravagance. The desire to be *commu il faut*, which underlies all conformities whether of manner, dress or styles of entertainment is the desire which makes many a spendthrift and many bankrupt. To 'keep up appearances, to have a house in an approved quarter furnished in the latest taste, to give expensive dinners and crowded *sourees*, is in ambition forming the natural outcome of the conformist spirit. It is needless to enlarge on these follies; they have been satirized by hosts of writers, and in every drawing room. All which here concerns us, is to point out that the respect for social observances, which men think so praiseworthy, has the same root with this effort to be fashionable in mode of living—and that, other things equal, the first cannot be diminished without the first being diminished also. If, now, we consider what this extravagance entails—if we

count up the robbed tradesmen, the untutored governesses, the ill educated children, the fleeced relatives, who have to suffer from it—if we mark the anxiety and the many moral delinquencies which its perpetrator involve themselves in, we shall see that this regard for convention is not quite so innocent as it looks.

Again it decreases the amount of social intercourse. Passing over the recluses and those who make a great display on speculation with the occasional result of getting on in the world to the exclusion of better men we come to the vulgar class who being prudent and honest enough not to exceed their means and yet wishing to be respectable are obliged to limit their entertainment to the smallest possible number and that each of these may be turned to the greatest advantage in meeting the claims on their hospitality, issue their invitations with little or no regard to the comfort or mutual fitness of their guests. A few inconveniently-large assembles, made up of people mostly strangers to each other or but faintly acquainted are made to serve in place of many small parties of friends intimate enough to have some bond of sympathy. Thus the quantity of intercourse is diminished and the quality deteriorated. Because it is the custom, to make costly preparations and provide costly refreshments—and because it entails both less expense and less trouble to do this for many persons on few occasions than for few persons on many occasions the recluses of our less wealthy classes are rendered alike infrequent and tedious.

Let it be further observed that the existing formalities of social intercourse drive away many who most need its refining influence—and drive them into injurious habits and associations. Not a few men and not the least sensible men either, give up in disgust this going out to stuffy dinners and stuff evening-parties—and instead, seek society in clubs, and cigar divans, and taverns. 'I'm sick of this standing about in

drawing-rooms, talking nonsense, and trying to look happy," will answer one of them when taxed with his desertion. "Why should I any longer waste time and money, and temper? Once I was ready enough to rush home from the office to dress; I sported embroidered shirts, submitted to tight boots, and cared nothing for tailors' and haberdashers' bills. I know better now. My patience lasted a good while; for though I found each night pass stupidly, I always hoped the next would make amends. But I'm undeceived. Cab-hire and kid gloves cost more than any evening party pays for; or rather—it is worth the cost of them to avoid the party. No, no; I'll no more of it. Why should I pay five shillings a time for the privilege of being bored?" If, now, we consider that this very common mood tends towards billiard-rooms, towards long sittings over cigars and brandy-and-water, towards Evans's and the Coal Hole; it becomes a question whether these precise observances which hamper our set meetings, have not to answer for much of the prevalent dissoluteness. Men must have excitements of some kind or other; and if debarred from higher ones will fall back upon lower. It is not that those who thus take to irregular habits are essentially those of low tastes. Often it is quite the reverse. Among half a dozen intimate friends, abandoning formalities and sitting at ease round the fire, none will enter with greater enjoyment into the highest kind of social intercourse—the genuine communion of thought and feeling; and if the circle includes women of intelligence and refinement, so much the greater is their pleasure. It is because they will no longer be choked with the mere dry husks of conversation which society offers them, that they fly its assemblies, and seek those with whom they may have discourse that is at least real, though unpolished. The men who thus long for substantial mental sympathy, and will go where they can get it, are often,

indeed, much better at the core than the men who are content with the inanities of gloved and scented party-goers—men who feel no need to come morally nearer to their fellow-creatures than they can come while standing, tea-cup in hand, answering trifles with trifles; and who, by feeling no such need, prove themselves shallow-thoughted and cold-hearted. It is true that some who shun drawing-rooms do so from inability to bear the restraints prescribed by a genuine refinement, and that they would be greatly improved by being kept under these restraints. But it is not less true that, by adding to the legitimate restraints, which are based on convenience and a regard for others, a host of factitious restraints based only on convention, the refining discipline, which would else have been borne with benefit, is rendered unbearable, and so misses its end. Excess of government defeats itself by driving away those to be governed. And if over all who desert its entertainments in disgust either at their emptiness or their formality, society thus loses its salutary influence—if such not only fail to receive that moral culture which the company of ladies, when rationally regulated, would give them, but, in default of other relaxation, are driven into habits and companionships which often end in gambling and drunkenness; must we not say that here, too, is an evil not to be passed over as insignificant?

Then consider what a blighting effect these multitudinous preparations and ceremonies have upon the pleasures they profess to subserve. Who, on calling to mind the occasions of his highest social enjoyments, does not find them to have been wholly informal, perhaps impromptu? How delightful a pic-nic of friends, who forget all observances save those dictated by good nature! How pleasant the unpretending gatherings of small book-societies, and the like; or those purely accidental meetings of a few people well known to each other! Then, indeed, we may see that "a man sharpeneth the

countenance of his friend." Cheeks flush, and eyes sparkle. The witty grow brilliant, and even the dull are excited into saying good things. There is an overflow of topics; and the right thought, and the right words to put it in, spring up unsought. Grave alternates with gay: now serious converse, and now jokes, anecdotes, and playful raillery. Everyone's best nature is shown: everyone's best feelings are in pleasurable activity; and, for the time, life seems well worth having. Go now and dress for some half-past eight dinner, or some ten o'clock "at home"; and present yourself in spotless attire, with every hair arranged to perfection. How great the difference! The enjoyment seems in the inverse ratio of the preparation. These figures, got up with such finish and precision, appear but half alive. They have frozen each other by their primness; and your faculties feel the numbing effects of the atmosphere the moment you enter it. All those thoughts, so nimble and so apt awhile since, have disappeared: have suddenly acquired a preternatural power of eluding you. If you venture a remark to your neighbour, there comes a trite rejoinder, and there it ends. No subject you can hit upon outlives half a dozen sentences. Nothing that is said excites any real interest in you; and you feel that all you say is listened to with apathy. By some strange magic, things that usually give pleasure seem to have lost all charm. You have a taste for art. Weary of frivolous talk, you turn to the table, and find that the book of engravings and the portfolio of photographs are as flat as the conversation. You are fond of music. Yet the singing, good as it is, you hear with utter indifference: and say "Thank you" with a sense of being a profound hypocrite. Wholly at ease though you could be, for your own part, you find that your sympathies will not let you. You see young gentlemen feeling whether their ties are properly adjusted, looking vacantly round, and considering what they shall do next.

You see ladies sitting disconsolately, waiting for some one to speak to them, and wishing they had the wherewith to occupy their fingers. You see the hostess standing about the doorway, keeping a factitious smile on her face, and racking her brain to find the requisite nothings with which to greet her guests as they enter. You see numberless traits of weariness and embarrassment; and, if you have any fellow feeling, these cannot fail to produce a sense of discomfort. The disorder is catching; and do what you will, you cannot resist the general infection. You struggle against it; you make spasmodic efforts to be lively; but none of your sallies or your good stories do more than raise a simper or a forced laugh: intellect and feeling are alike asphyxiated. And when, at length, yielding to your disgust, you rush away, how great is the relief when you get into the fresh air, and see the stars! How you "Thank God, that's over!" and half resolve to avoid all such boredom for the future! What, now, is the secret of this perpetual miscarriage and disappointment? Does not the fault lie with these needless adjuncts—these elaborate dressings, these set forms, these expensive preparations, these many devices and arrangements that imply trouble and raise expectation? Who that has lived thirty years in the world has not discovered that Pleasure is coy; and must not be too directly pursued, but must be caught unawares? An air from a street-piano, heard while at work, will often gratify more than the choicest music played at a concert by the most accomplished musicians. A single good picture seen in a dealer's window, may give keener enjoyment than a whole exhibition gone through with catalogue and pencil. By the time we have got ready our elaborate apparatus by which to secure happiness, the happiness is gone. It is too subtle to be contained in these receivers, garnished with compliments, and fenced round with etiquette. The more we multiply and complicate

appliances, the more certain are we to drive it away. The reason is patent enough. These higher emotions to which social intercourse ministers, are of extremely complex nature; they consequently depend for their production upon very numerous conditions; the more numerous the conditions, the greater the liability that one or other of them will not be fulfilled. It takes a considerable misfortune to destroy appetite; but cordial sympathy with those around may be extinguished by a look or a word. Hence it follows, that the more multiplied the *unnecessary* requirements with which social intercourse is surrounded, the less likely are its pleasures to be achieved. It is difficult enough to fulfil continuously all the *essentials* to a pleasurable communion with others; how much more difficult, then, must it be continuously to fulfil a host of *non-essentials* also! What chance is there of getting any genuine response from the lady who is thinking of your stupidity in taking her in to dinner on the wrong arm? How are you likely to have agreeable converse with the gentleman who is fuming internally because he is not placed next to the hostess? Formalities, familiar as they may become, necessarily occupy attention—necessarily multiply the occasions for mistake, misunderstanding, and jealousy, on the part of one or other—necessarily distract all minds from the thoughts and feelings which should occupy them—necessarily, therefore, subvert those conditions under which only any sterling intercourse is to be had.

And this, indeed, is the fatal mischief which these conventions entail—a mischief to which every other is secondary. They destroy those pleasures which they profess to subserve. All institutions are alike in this, that however useful, and needful even, they originally were, they in the end cease to be so, but often become detrimental. While humanity is growing, they continue fixed; daily get more mechanical and unvital; and by and by tend to strangle what they

before preserved. Old forms of government finally grow so oppressive, that they must be thrown off even at the risk of reigns of terror. Old creeds end in being dead formulas, which no longer aid but distort and arrest the general mind; while the State-churches administering them, come to be instruments for subsidizing conservatism and repressing progress. Old schemes of education, incarnated in public schools and colleges, continue filling the heads of new generations with what has become relatively useless knowledge, and, by consequence, excluding knowledge which is useful. Not an organization of any kind—political, religious, literary, philanthropic—but what, by its ever-multiplying regulations, its accumulating wealth, its yearly addition of officers, and the creeping into it of patronage and party feeling, eventually loses its original spirit, and sinks into a lifeless mechanism, worked with a view to private ends—a mechanism which not merely fails of its first purpose, but is a positive hindrance to it. Thus is it, too, with social usages. We read of the Chinese that they have “ponderous ceremonies transmitted from time immemorial,” which make social intercourse a burden. The court forms prescribed by monarchs for their own exaltation, have, in all times and places, ended in consuming the comfort of their lives. And so the artificial observances of the dining-room and saloon, in proportion as they are many and strict, extinguish that agreeable communion which they were intended to secure. The dislike with which people commonly speak of society that is “formal,” and “stiff,” and “ceremonious,” implies a general recognition of this fact; and this recognition involves the inference that all usages of behaviour which are not based on natural requirements, are injurious. That these conventions defeat their own ends is no new assertion. Swift, criticising the manners of his day, says—“Wise men are often more uneasy at the over-civility of these refiners than they could possibly

be in the conversation of peasants and mechanics."

But it is not only in these details that the self-defeating action of our arrangements is traceable; it is traceable in the very substance and nature of them. Our social intercourse, as commonly managed, is a mere semblance of the reality sought. What is it that we want? Some sympathetic converse with our fellow creatures—some converse that shall not be mere dead words, but the vehicle of living thoughts and feelings; converse in which the eyes and the face shall speak and the tones of the voice be full of meaning—converse which shall make us feel no longer alone, but shall draw us closer to others, and double our own emotions by adding theirs to them. Who is there that has not, from time to time, felt how cold and flat is all this talk about politics and science, and the new books and the new men, and how a genuine utterance of fellow feeling outweighs the whole of it? Mark the words of Bacon: "For a crowd is not company and faces are but a gallery of pictures, and talk but a tinkling cymbal where there is no love." If this be true, then it is only after acquaintance has grown into intimacy and intimacy has ripened into friendship that the real communion which men need becomes possible. A rationally formed circle must consist almost wholly of those on terms of familiarity and regard, with but one or two strangers. What folly, then, underlies the whole system of our grand dinners, our "at homes," our evening parties, crowds made up of many who never met before, many who just bow to one another, many who though well known feel mutual indifference, with just a few real friends lost in the general mass! You need but look round at the artificial expressions of face, to see at once how it is. All have their disguises on, and how can there be sympathy between masks? No wonder that in private every one exclaims against the stupidity of these gatherings. No wonder that hostesses get them up rather because

they must than because they wish. No wonder that the invited go less from the expectation of pleasure than from fear of giving offence. The whole thing is an organized disappointment.

And then note lastly, that in this case, as in others, an organisation inoperative for its proper purpose, it is employed for quite other purposes. What is the usual plea put in for giving and attending these tedious assemblies? "I admit that they are dull and frivolous enough," replies every man to your criticisms; "but then, you know, one must keep up one's connections. And could you get from his wife a sincere answer, it would be, 'I like you, I am sick of these formal parties, but then, we must get our daughters married.' The one knows that there is a profession to push, a business to extend, or parliamentary influence, or county patronage, or votes, or office to be at position, berth, favour, profit. The other's thought runs upon husbands and settlements, wives and dowries. Worthless for their ostensible purpose of daily bringing human beings into pleasurable relations with each other, the cumbrous appliances of our social intercourse are now perseveringly kept in action with a view to the pecuniary and matrimonial results which they indirectly produce.

Who then shall say that the reform of our system of observances is unimportant? When we see how this system induces fashionable extravagance, with its occasional ruin; when we mark how greatly it limits the amount of social intercourse among the less wealthy classes; when we find that many who most need to be disciplined by mixing with the refined are driven away by it, and led into bad courses; when we count up the many minor evils it inflicts, the extra work which its costliness entails on all professional and mercantile men; the damage to public taste in dress and decoration by the setting up of its absurdities as standards for imitation; the injury to health indicated in the faces of its devotees at the close of the

London season, the mortality of milliners and the like, which its sudden exigencies yearly involve;—and when to all these we add its fatal sin, that it withers up and kills that high enjoyment it professedly ministers to—shall we not conclude that to rationalize etiquette and fashion, is an aim yielding to few in urgency?

There needs, then, a protestantism in social usages. Forms which have ceased to facilitate and have become obstructive—have to be swept away. Signs are not wanting that some change is at hand. A host of satirists, led on by Thackeray, have long been engaged in bringing our sham-festivities, and our fashionable follies, into contempt; and in their candid moods, most men laugh at the frivolities with which they and the world in general are deluded. Ridicule has always been a revolutionary agent. Institutions that have lost their roots in men's respect and faith are doomed; and the day of their dissolution is not far off. The time is approaching, then, when our system of social observances must pass through some crisis, out of which it will come purified and comparatively simple.

How this crisis will be brought about, no one can say. Whether by the continuance and increase of individual protests, or whether by the union of many persons for the practice and diffusion of better usages, the future alone can decide. The influence of dissentients acting without co-operation, seems inadequate. Frowned on by conformists, and expostulated with even by those who secretly sympathize with them; subject to petty persecutions, and unable to trace any benefit produced by their example; they are apt, one by one, to give up their attempts as hopeless. The young convention-breaker eventually finds that he pays too heavily for his nonconformity. Hating, for example, everything that bears about it any remnant of servility, he determines, in the ardour of his independence, that he will uncover to no one.

But what he means simply as a general protest, he finds that ladies interpret into a personal disrespect. In other cases his courage fails him. Such of his unconventionalities as can be attributed only to eccentricity, he has no qualms about; for, on the whole, he feels rather complimented than otherwise in being considered a disregarder of public opinion. But when they are liable to be put down to ignorance, to ill-breeding, or to poverty, he becomes a coward. However clearly the recent innovation of eating some kinds of fish with knife and fork proves the fork-and-bread practice to have had little but caprice for its basis, yet he dares not wholly ignore that practice while fashion partly maintains it.¹ Though he thinks that a silk handkerchief is quite as appropriate for drawing-room use as a white cambric one, he is not altogether at ease in acting out his opinion. Then, too, he begins to perceive that his resistance to prescription brings round disadvantageous results which he had not calculated upon. He had expected that it would save him from a great deal of social intercourse of a frivolous kind—that it would offend the silly people, but not the sensible people; and so would serve as a self-acting test by which those worth knowing would be separated from those not worth knowing. But the silly people prove to be so greatly in the majority that, by offending them, he closes against himself nearly all the avenues through which the sensible people are to be reached. Thus he finds, that his nonconformity is frequently misinterpreted; that there are but few directions in which he dares to carry it consistently out; that the disadvantages it entails are greater than he anticipated; and that the chances of his doing any good are very remote. Hence he gradually loses resolution, and lapses, step by step, into the ordinary routine of observances.

Abortive as individual protests thus

¹ This was written before the introduction of silver fish-knives.

generally turn out, it may possibly be that nothing effectual will be done until there arises some organized resistance to this invisible despotism, by which our modes and habits are dictated. It may happen, that the government of Manners and Fashion will be rendered less tyrannical, as the political and religious governments have been, by some antagonistic union. Alike in Church and State, men's first emancipations from excesses of restriction were achieved by numbers, bound together by a common creed or a common political faith. What remained undone while there were but individual schismatics or rebels, was effected when there came to be many acting in concert. It is tolerably clear that these earliest instalments of freedom could not have been obtained in any other way; for so long as the feeling of personal independence was weak and the rule strong, there could never have been a sufficient number of separate dissentients to produce the desired results. Only in these later times, during which the secular and spiritual controls have been growing less coercive, and the tendency towards individual liberty greater, has it become possible for smaller and smaller sects and parties to fight against established creeds and laws; until now men may safely stand even alone in their antagonism. The failure of individual nonconformity to customs, suggests that an analogous series of changes may have to be gone through in this case also. It is true that the *lex non scripta* differs from the *lex scripta* in this, that, being unwritten, it is more readily altered; and that it has, from time to time, been quietly ameliorated. Nevertheless, we shall find that the analogy holds substantially good. For in this case, as in the others, the essential revolution is not the substituting of any one set of restraints for any other, but the limiting or abolishing the authority which prescribes restraints. Just as the fundamental change inaugurated by the Reformation, was not a superseding of one creed by another, but an ignoring of the arbiter

who before dictated creeds—just as the fundamental change which Democracy long ago commenced, was not from this particular law to that, but from the despotism of one to the freedom of all; so, the parallel change yet to be wrought out in this supplementary government of which we are treating, is not the replacing of absurd usages by sensible ones, but the dethronement of that power which now imposes our usages, and the assertion of the rights of individuals to choose their own usages. In rules of living, a West-end clique is our Pope; and we are all papists, with but a mere sprinkling of heretics. On those who decisively rebel, comes down the penalty of excommunication, with its long catalogue of disagreeable and, indeed, serious consequences. The liberty of the subject asserted in our constitution, and ever on the increase, has yet to be wrested from this subtler tyranny. The right of private judgment, which our ancestors wrung from the church, remains to be claimed from this dictator of our habits. Or, as before said, to free us from these idolatries and superstitious conformities, there has still to come a protestantism in social usages. Parallel, therefore, as is the change to be wrought out, it seems not improbable that it may be wrought out in an analogous way. That influence which solitary dissentients fail to gain, and that perseverance which they lack, may come into existence when they unite. That persecution which the world now visits upon them from mistaking their nonconformity for ignorance or disrespect, may diminish when it is seen to result from principle. The penalty which exclusion now entails may disappear when they become numerous enough to form visiting circles of their own. And when a successful stand has been made, and the brunt of the opposition has passed, that large amount of secret dislike to our observances which now pervades society, may manifest itself with sufficient power to effect the desired emancipation.

Whether such will be the process,

name alone can decide. That community of origin, growth, supremacy, and decadence, which we have found among all kinds of government, suggests a community in modes of change also. On the other hand, Nature often performs substantially similar operations, in ways apparently different. Hence these details can never be foretold.

Meanwhile, let us glance at the conclusions that have been reached. On the one side, government, originally one, and afterwards subdivided for the better fulfilment of its function, must be considered as having ever been, in all its branches—political, religious, and ceremonial—beneficial; and, indeed, absolutely necessary. On the other side, government, under all its forms, must be regarded as subserving an office, made needful by the unfitness of aboriginal humanity for social life; and the successive diminutions of its coerciveness in State, in Church, and in Custom, must be looked upon accompanying the increasing adaptation of humanity to its conditions. To complete the conception, there requires to be borne in mind the third fact, that the genesis, the maintenance, and the decline of all govern-

ments, however named, are alike brought about by the humanity to be controlled; from which may be drawn the inference that, on the average, restrictions of every kind cannot last much longer than they are wanted, and cannot be destroyed much faster than they ought to be. Society, in all its developments, undergoes the process of exuviation. These old forms which it successively throws off, have all been once vitally united with it—have severally served as the protective envelopes within which a higher humanity was being evolved. They are cast aside only when they become hindrances only when some inner and better envelope has been formed; and they bequeath to us all that there was in them of good. The periodical abolitions of tyrannical laws have left the administration of justice not only unimpaired, but purified. Dead and buried creeds have not carried with them the essential morality they contained, which still exists, uncontaminated by the sloughs of superstition. And all that there is of justice and kindness and beauty, embodied in our cumbrous forms of etiquette, will live perennially when the forms themselves have been forgotten.

MILL VERSUS HAMILTON—THE TEST OF TRUTH

(1865)

BRITISH speculation, to which the chief initial ideas and established truths of Modern Philosophy are due, is no longer dormant. By his *System of Logic*, Mr. Mill probably did more than any other writer to re-awaken it. And to the great service he thus rendered some twenty years ago, he now adds by his *Examination of Sir William Hamilton's Philosophy*—a work which, taking the

views of Sir William Hamilton as texts, reconsiders sundry ultimate questions that still remain unsettled.

Among these questions is one of much importance which has already been the subject of controversy between Mr. Mill and others; and this question I propose to discuss afresh. Before doing so, however, it will be desirable to glance at two cardinal doctrines of the

Hamiltonian philosophy from which Mr Mill shows reasons for dissenting desirable, because comment on them will elucidate what is to follow.

In his fifth chapter, Mr Mill points out that "what is rejected as knowledge by Sir William Hamilton, is 'brought back by him under the name of belief.' The quotations justify this description of Sir W. Hamilton's position, and warrant the assertion that the relativity of knowledge was held by him but nominally. His inconsistency may, I think, be traced to the use of the word 'belief' in two quite different senses. We commonly say we 'believe' a thing for which we can assign preponderating evidence, or concerning which we have received some indelible impression. We *believe* that the next House of Commons will not abolish Church rates; or we *believe* that a person on whose face we look is good-natured. But it is when we can give confessedly inadequate proofs or no proofs at all for the things we think, we call them 'beliefs.' And it is the peculiarity of these beliefs as contrasted with cognitions that their connexions with antecedent states of consciousness may be easily overruled instead of being difficult to sever. But, unhappily, the word 'belief' is also applied to each of those temporarily or permanently indissoluble connexions in consciousness for the acceptance of which the only warrant is that it cannot be got rid of. Seeing that I feel a pain or hear a sound or see one line to be longer than another, is saying that there has occurred in me a certain change of state, and it is impossible for me to give a stronger evidence of this fact than that it is present to my mind. Every argument, too, is reducible into successive affections of consciousness which have no warrants beyond themselves. When asked why I assert some mediately known truth, as that the three angles of a triangle are equal to two right angles, I find that the proof may be decomposed into steps, each of which is an immediate consciousness that certain two

quantities or two relations are equal or unequal—a consciousness for which no further evidence is assignable than that it exists in me. Nor, on finally getting down to some axiom underlying the whole fabric of demonstration, can I say more than that it is a truth of which I am immediately conscious. But now observe the confusion that has arisen. The immense majority of truths which we accept is beyond doubt, and from which our notion of unquestionable truth is abstracted, have this other trait in common: they are severally established by affiliation on deeper truths. These two characters have become so associated that one seems to imply the other. For each truth of geometry we are able to assign some wider truth in which it is involved; for that wider truth we are able if required to assign some still wider; and so on. This being the general nature of the demonstration by which exact knowledge is established, there has arisen the illusion that knowledge so established is knowledge of higher validity than that immediate knowledge which has nothing deeper to rest on. The habit of asking for proof, and having proof given in all these multitudinous cases, has produced the implication that proof may be asked for those ultimate direct consciousnesses into which all proof is resolvable. And then because no proof of these can be given, there arises the vague feeling that they are akin to other things of which no proof can be given, that they are uncertain, that they have unsatisfactory bases. This feeling is strengthened by the accompanying misuse of words. 'Belief' having, as above pointed out, become the name of an impression for which we can give only a confessedly inadequate reason or no reason at all; it happens that when pushed hard respecting the warrant for any ultimate dictum of consciousness, we say, in the absence of all assignable reason, that we *believe* it. Thus the two opposite poles of knowledge—under the same name; and by the reverse connotations of this

name, as used for the most coherent and least coherent relations of thought, profound misconceptions have been generated. Here, it seems to me, is the source of Sir William Hamilton's error. Classing as "beliefs" those direct, undecomposable dicta of consciousness which transcend proof, he asserts that these are of higher authority than knowledge (meaning by knowledge that for which reasons can be given); and in asserting this he is fully justified. But when he claims equal authority for those affections of consciousness which go under the same name of "beliefs," but differ in being extremely-indirect affections of consciousness, or not definite affections of consciousness at all, the claim cannot be admitted. By his own showing, no positive cognition answering to the word "infinite" exists; while, contrariwise, those cognitions which he rightly holds to be above question, are not only positive, but have the peculiarity that they cannot be suppressed. How, then, can the two be grouped together as of like degrees of validity?

Nearly allied in nature to this, is another Hamiltonian doctrine, which Mr. Mill effectively combats. I refer to the corollary respecting noumenal existence which Sir William Hamilton draws from the law of the Excluded Middle, or, as it might be more intelligibly called, the law of the Alternative Necessity. A thing must either exist or not exist—must have a certain attribute or not have it: there is no third possibility. This is a postulate of all thought; and in so far as it is alleged of phenomenal existence, no one calls it in question. But Sir William Hamilton, applying the formula beyond the limits of thought, draws from it certain conclusions respecting things as they are, apart from our consciousness. He says, for example, that though we cannot conceive Space as infinite or as finite, yet, "on the principle of the Excluded Middle, one or other must be admitted." This inference Mr. Mill shows good reason for rejecting. His argument may be supple-

mented by another, which at once suggests itself if from the words of Sir William Hamilton's propositions we pass to the thoughts for which they are supposed to stand. When remembering a certain thing as in a certain place, the place and the thing are mentally represented together; while to think of the non-existence of the thing in that place, implies a consciousness in which the place is represented but not the thing. Similarly, if, instead of thinking of an object as colourless, we think of it as having colour, the change consists in the addition to the concept of an element that was before absent from it—the object cannot be thought of first as red and then as not red, without one component of the thought being expelled from the mind by another. The doctrine of the Excluded Middle, then, is simply a generalization of the universal experience that some mental states are directly destructive of other states. It formulates a certain absolutely-constant law, that no positive mode of consciousness can occur without excluding a correlative negative mode; and that the negative mode cannot occur without excluding the correlative positive mode: the antithesis of positive and negative, being, indeed, merely an expression of this experience. Hence it follows that if consciousness is not in one of the two modes, it must be in the other. But now, under what conditions only can this law of consciousness hold? It can hold only so long as there are positive states of consciousness which can exclude the negative states, and which the negative states can in their turn exclude. If we are not concerned with positive states of consciousness at all, no such mutual exclusion takes place, and the law of the Alternative Necessity does not apply. Here, then, is the flaw in Sir William Hamilton's proposition. That Space must be infinite or finite, are alternatives of which we are not obliged to regard one as necessary; seeing that we have no state of consciousness answering to either of these words as applied to the

totality of Space, and therefore no exclusion of two antagonist states of consciousness by one another. Both alternatives being unthinkable, the proposition should be put thus: Space is either _____ or is _____; neither of which can be conceived, but one of which must be true. In this, as in some other cases, Sir William Hamilton continues to work out the forms of thought when they no longer contain any substance; and, of course, reaches nothing more than verbal conclusions.

Ending here these comments on doctrines of Sir William Hamilton, which Mr. Mill rejects on grounds that will be generally recognized as valid, let me now pass to a doctrine, partly held by Sir William Hamilton, and held by others in ways variously qualified and variously extended—a doctrine which, I think, may be successfully defended against Mr. Mill's attack.

In the fourth and fifth editions of his *Logic*, Mr. Mill treats, at considerable length, the question—Is inconceivability an evidence of untruth? replying to criticisms previously made on his reasons for asserting that it is not. The chief answers which he there makes to these criticisms, turn upon the interpretation of the word *inconceivable*. This word he considers is used as the equivalent of the word *unbelievable*; and, translating it thus, readily disposes of sundry arguments brought against him. Whether any others who have used these words in philosophical discussion, have made them synonymous, I do not know; but that they are so used in those reasonings of my own which Mr. Mill combats, I was not conscious, and was surprised to find alleged. It is now manifest that I had not adequately guarded myself against the misconstruction which is liable to arise from the double meaning of the word *belief*—a word which, we have seen, is used for the most coherent and the least coherent connexions in consciousness, because they have the common character that no reason is

assignable for them. Throughout the argument to which Mr. Mill replies, the word is used by me only in the first of these senses. The “invariably existent beliefs,” the “indestructible beliefs,” are the indissoluble connexions in consciousness never the dissoluble ones. But *unbelievable* implies the dissoluble ones. By association with the other and more general meaning of the word *belief*, the word *unbelievable* suggests cases in which the proposition admits of being represented in thought, though it may be with difficulty; and in which, consequently, the counter proposition admits of being decomposed. To be quite sure of our ground, let us define and illustrate the meanings of *inconceivable* and *unbelievable*. An *inconceivable* proposition is one of which the terms cannot, by any effort, be brought before consciousness in that relation which the proposition asserts between them—a proposition of which the subject and the predicate offer an insurmountable resistance to union in thought. An *unbelievable* proposition is one which admits of being framed in thought, but is so much at variance with experience that its terms cannot be put in the alleged relation without effort. Thus, it is *unbelievable* that a cannon-ball fired from England should reach America; but it is not *inconceivable*. Conversely, it is *inconceivable* that one side of a triangle is equal to the sum of the other two sides—not simply *unbelievable*. The two sides cannot be represented in consciousness as becoming equal in their joint length to the third side, without the representation of a triangle being destroyed; and the concept of a triangle cannot be framed without a simultaneous destruction of a concept in which these magnitudes are represented as equal. That is to say, the subject and predicate cannot be united in the same intuition—the proposition is unthinkable. It is in this sense only that I have used the word *inconceivable*; and only when rigorously restricted to this sense do I regard the test of inconceivableness as having any value

I had concluded that when this explanation was made, Mr Mill's reasons for dissent would be removed. Passages in his recently published volume, however, show that, even restricting the use of the word inconceivable to the meaning here specified, he still denies that a proposition is proved to be true by the inconceivableness of its negation. To meet, within my moderate compass, all the issues which have grown out of the controversy is difficult. Before passing to the essential question, however, I will endeavour to clear the ground of certain minor questions.

Describing Sir William Hamilton's doctrine respecting the ultimate facts of consciousness or those which are above proof, Mr Mill writes:

"The only condition he requires is that we be not able to reduce it [a fact of this class] to a generalization from experience. This condition is valued by its possessing the character of necessity. 'It must be impossible not to think of it. In fact, by its necessity alone can we recognize it as an original datum of intelligence, and distinguish it from any mere result of generalization and custom. In this Sir William Hamilton is at one with the whole of his own section of the philosophical world, with Reid, with Stewart with Cousin, with Whewell we may add with Kant and even with Mr Herbert Spencer. The test by which they all decide a belief to be a part of our primitive consciousness—an original intuition of the mind—is the necessity of thinking it. Their proof that we must always, from the beginning, have had the belief is the impossibility of getting rid of it now. This argument applied to any of the disputed questions of philosophy is doubly illegitimate: neither the major nor the minor premise is admissible. For in the first place, the very fact that the question is disputed disproves the alleged impossibility. Those against whom it is needful to defend the belief which is affirmed to be necessary, are unmistakable examples

that it is not necessary. These philosophers, therefore, and among them Sir William Hamilton, mistake altogether the true conditions of psychological investigation, when, instead of proving a belief to be an original fact of consciousness by showing that it could not have been acquired, they conclude that it was not acquired, for the reason, often false, and never sufficiently substantiated, that our consciousness cannot get rid of it now.

This representation, in so far as it concerns my own views, has somewhat puzzled me. Considering that I have avowed a general agreement with Mr Mill in the doctrine that all knowledge is from experience and have defended the test of inconceivableness on the very ground that it expresses the net result of our experiences up to the present time (*Principles of Psychology*, § 430)—considering, that so far from asserting the distinction quoted from Sir William Hamilton I have aimed to abolish such distinction considering that I have endeavoured to show how all our conceptions even down to those of Space and Time, are acquired considering that I have ought to interpret forms of thought (and by implication all intuitions) as products of organized and inherited experiences (*Principles of Psychology*, § 205) I am taken aback at finding myself classed as in the above paragraph. Leaving the personal question however, let me pass to the assertion that the difference of opinion respecting the test of necessity itself disproves the validity of the test. Two issues are here involved. First, if a particular proposition is by some accepted as a necessary belief, but by one or more denied to be a necessary belief, is the validity of the test of necessity thereby disproved in respect of that particular proposition? Second, if the validity of the test is disproved in respect of that particular proposition, does it therefore follow that the test cannot be depended on in other cases?—does it follow that there are no beliefs

universally accepted as necessary, and in respect of which the test of necessity is valid? Each of these questions may, I think, be rightly answered in the negative.

In alleging that if a belief is said by some to be necessary, but by others to be not necessary, the test of necessity is thereby shown to be no test, Mr. Mill tacitly assumes that all men have powers of introspection enabling them in all cases to say what consciousness testifies; whereas a great proportion of men are incapable of correctly interpreting consciousness in any but its simplest modes, and even the remainder are liable to mistake for dicta of consciousness what prove on closer examination not to be its dicta. Take the case of an arithmetical blunder. A boy adds up a column of figures, and brings out a wrong total. Again he does it and again errs. His master asks him to go through the process aloud, and then hears him say "35 and 9 are 46"—an error which he had repeated on each occasion. Now without discussing the mental act through which we know that 35 and 9 are 44, and through which we recognize the necessity of this relation, it is clear that the boy's misinterpretation of consciousness, leading him tacitly to deny this necessity by asserting that "35 and 9 are 46," cannot be held to prove that the relation is not necessary. This, and kindred misjudgments daily made by accountants, merely show that there is a liability to overlook what are necessary connexions in our thoughts, and to assume as necessary others which are not. In these and hosts of cases, men do not distinctly translate into their equivalent states of consciousness the words they use. This negligence is with many so habitual, that they are unaware that they have not clearly represented to themselves the propositions they assert; and are then apt, quite sincerely though erroneously, to assert that they can think things which it is really impossible to think.

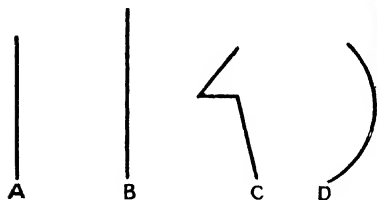
But supposing it to be true that

whenever a particular belief is alleged to be necessary, the existence of some who profess themselves able to believe otherwise, proves that this belief is not necessary; must it be therefore admitted that the test of necessity is invalid? I think not. Men may mistake for necessary, certain beliefs which are not necessary; and yet it may remain true that there *are* necessary beliefs, and that the necessity of such beliefs is our warrant for them. Were conclusions thus tested proved to be wrong in a hundred cases, it would not follow that the test is an invalid one; any more than it would follow from a hundred errors in the use of a logical formula, that the logical formula is invalid. If from the premise that all horned animals ruminates, it were inferred that the rhinoceros, being a horned animal, ruminates; the error would furnish no argument against the worth of syllogisms in general whatever their worth may be. Daily there are thousands of erroneous deductions which, by those who draw them, are supposed to be warranted by the data from which they draw them; but no multiplication of such erroneous deductions is regarded as proving that there are no deductions truly drawn, and that the drawing of deductions is illegitimate. In these cases, as in the case to which they are here paralleled, the only thing shown is the need for verification of data and criticism of the acts of consciousness.

"This argument," says Mr. Mill, referring to the argument of necessity, "applied to any of the disputed questions of philosophy, is doubly illegitimate; . . . the very fact that the question is disputed, disproves the alleged impossibility." Besides the foregoing replies to this, there is another. Granting that there have been appeals illegitimately made to this test—granting that there are many questions too complex to be settled by it, which men have nevertheless proposed to settle by it, and have consequently got into controversy; it may yet be truly asserted that in

respect of all, or almost all, questions legitimately brought to judgment by this test, there is *no* dispute about the answer. From the earliest times on record down to our own, men have not changed their beliefs concerning the truths of number. The axiom that if equals be added to unequals the sums are unequal, was held by the Greeks no less than by ourselves, as a direct verdict of consciousness, from which there is no escape and no appeal. Each of the propositions of Euclid appears to us absolutely beyond doubt as it did to them. Each step in each demonstration we accept, as they accepted it, because we immediately see that the alleged relation is as alleged, and that it is impossible to conceive it otherwise.

But how are legitimate appeals to the test to be distinguished? The answer is not difficult to find. Mr. Mill cites



the belief in the antipodes as having been rejected by the Greeks because inconceivable, but as being held by ourselves to be both conceivable and true. He has before given this instance, and I have before objected to it (*Principles of Psychology*, § 428), for the reason that the states of consciousness involved in the judgment are too complex to admit of any trustworthy verdict being given. An illustration will show the difference between a legitimate appeal to the test and an illegitimate appeal to it. A and B are two lines.

How is it decided that they are equal or not equal? No way is open but that of comparing the two impressions they make on consciousness. I know them to be unequal by an immediate act, if the difference is great, or if, though only

moderately different, they are close together; and supposing the difference is but slight, I decide the question by putting the lines in apposition when they are movable, or by carrying a movable line from one to the other if they are fixed. But in any case, I obtain in consciousness the testimony that the impression produced by the one line differs from that produced by the other. Of this difference I can give no further evidence than that I am conscious of it, and find it impossible, while contemplating the lines, to get rid of the consciousness. The proposition that the lines are unequal is a proposition of which the negation is inconceivable. But now suppose it is asked whether B and C are equal; or whether C and D are equal. No positive answer is possible. Instead of its being inconceivable that B is longer than C, or equal to it, or shorter, it is conceivable that it is any one of the three. Here an appeal to the direct verdict of consciousness is illegitimate, because on transferring the attention from B to C, or C to D, the changes in the other elements of the impressions so entangle the elements to be compared, as to prevent them from being put in apposition. If the question of relative length is to be determined, it must be by rectification of the bent line; and this is done through a series of steps, each one of which involves an immediate judgment akin to that by which A and B are compared. Now as here, so in other cases, it is only simple percepts or concepts respecting the relations of which immediate consciousness can satisfactorily testify; and as here, so in other cases, it is by resolution into such simple percepts and concepts, that true judgments respecting complex percepts and concepts are reached. That things which are equal to the same thing are equal to one another, is a fact which can be known by direct comparison of actual or ideal relations, and can be known in no other way: the proposition is one of which the negation is inconceivable, and is

rightly asserted on that warrant. But that the square of the hypotenuse of a right-angled triangle equals the sum of the squares of the other two sides, cannot be known immediately by comparison of two states of consciousness. Here the truth can be reached only mediately, through a series of simple judgments respecting the likenesses or unlikenesses of certain relations: each of which judgments is essentially of the same kind as that by which the above axiom is known, and has the same warrant. Thus it becomes apparent that the fallacious result of the test of necessity which Mr. Mill instances, is due to a misapplication of the test.

These preliminary explanations have served to make clear the question at issue. Let us now pass to the essence of it.

Metaphysical reasoning is usually vitiated by some covert *petitio principii*. Either the thing to be proved or the thing to be disproved, is tacitly assumed to be true in the course of the proof or disproof. It is thus with the argument of Idealism. Though the conclusion reached is that Mind and Ideas are the only existences; yet the steps by which this conclusion is reached, take for granted that external objects have just the kind of independent existence which is eventually denied. If that extension which the Idealist contends is merely an affection of consciousness, has nothing out of consciousness answering to it; then, in each of his propositions concerning extension, the word should always mean an affection of consciousness and nothing more. But if wherever he speaks of distances and dimensions we write ideas of distances and dimensions, his propositions are reduced to nonsense. So, too, is it with Scepticism. The resolution of all knowledge into "impressions" and "ideas," is effected by an analysis which assumes at every step an objective reality producing the impressions and the subjective reality receiving them. The reasoning becomes

impossible if the existence of object and subject be not admitted at the outset. Agree with the Sceptic's doubt, and then propose to revise his argument so that it may harmonize with his doubt. Of the two alternatives between which he halts, assume, first, the reality of object and subject. His argument is practicable; whether valid or not. Now assume that object and subject do not exist. He cannot stir a step toward his conclusion—nay, he cannot even state his conclusion: for the word "impression" cannot be translated into thought without assuming a thing impressing and a thing impressed.

Though Empiricism, as at present understood, is not thus suicidal, it is open to an analogous criticism on its method, similarly telling against the validity of its inference. It proposes to account for our so-called necessary beliefs, as well as all our other beliefs; and to do this without postulating any one belief as necessary. Bringing forward abundant evidence that the connexions among our states of consciousness are determined by our experiences—that two experiences frequently recurring together in consciousness, become so coherent that one strongly suggests the other, and that when their joint recurrence is perpetual and invariable, the connexion between them becomes indissoluble; it argues that the indissolubility, so produced, is all that we mean by necessity. And then it seeks to explain each of our so-called necessary beliefs as thus originated. Now could pure Empiricism reach this analysis and its subsequent synthesis without taking any thing for granted, its arguments would be unobjectionable. But it cannot do this. Examine its phraseology, and there arises the question, experiences of *what*? Translate the word into thought, and it clearly involves something more than states of mind and the connexions among them. For if it does not, then the hypothesis is that states of mind are generated by the experiences of states of mind; and if

the inquiry be pursued, this ends with initial states of mind which are not accounted for—the hypothesis fails. Evidently, there is tacitly assumed something beyond the mind by which the “experiences” are produced—something in which exist the objective relations to which the subjective relations correspond—an external world. Refuse thus to explain the word “experiences,” and the hypothesis becomes meaningless. But now, having thus postulated an external reality as the indispensable foundation of its reasonings, pure Empiricism can subsequently neither prove nor disprove its postulate. An attempt to disprove it, or to give it any other meaning than that originally involved, is suicidal; and an attempt to establish it by inference is reasoning in a circle. What then are we to say of this proposition on which Empiricism rests? Is it a necessary belief, or is it not? If necessary, the hypothesis in its pure form is abandoned. If not necessary—if not posited *a priori* as absolutely certain—then the hypothesis rests on an uncertainty; and the whole fabric of its argument is unstable. More than this is true. Besides the insecurity implied by building on a foundation that is confessedly not beyond question, there is the much greater insecurity implied by raising proposition upon proposition of which each is confessedly not beyond question. For to say that there are no necessary truths, is to say that each successive inference is not necessarily involved in its premises—is an empirical judgment—a judgment not certainly true. Hence, applying rigorously its own doctrine, we find that pure Empiricism, starting from an uncertainty and progressing through a series of uncertainties, cannot claim much certainty for its conclusions.

Doubtless, it may be replied that any theory of human knowledge must set out with assumptions—either permanent or provisional; and that the validity of these assumptions is to be determined by the results reached through them.

But that such assumptions may be made legitimately, two things are required. In the first place they must not be multiplied step after step as occasion requires; otherwise the conclusion reached might as well be assumed at once. And in the second place, the fact that they *are* assumptions must not be lost sight of: the conclusions drawn must not be put forward as though they have a certainty which the premises have not. Now pure Empiricism, in common with other theories of knowledge, is open to the criticism, that it neglects thus avowedly to recognize the nature of those primary assumptions which it lays down as provisionally valid, if it denies that they can be necessarily valid. And it is open to the further criticism, that it goes on at every step in its argument making assumptions which it neglects to specify as provisional; since they, too, cannot be known as necessary. Until it has assigned some warrant for its original datum and for each of its subsequent inferences, or else has acknowledged them all to be but hypothetical, it may be stopped either at the outset or at any stage in its argument. Against every “because” and every “therefore,” an opponent may enter a caveat, until he is told why it is asserted: contending, as he may, that if this inference is not necessary he is not bound to accept it; and that if it is necessary it must be openly declared to be necessary, and some test must be assigned by which it is distinguished from propositions that are not necessary.

These considerations will, I think, make it obvious that the first step in a metaphysical argument, rightly carried on, must be an examination of propositions for the purpose of ascertaining what character is common to those which we call unquestionably true, and is implied by asserting their unquestionable truth. Further, to carry on this inquiry legitimately, we must restrict our analysis rigorously to states of consciousness considered in their relations to one another: wholly ignoring

any thing beyond consciousness to which these states and their relations may be supposed to refer. For if, before we have ascertained by comparing propositions what is the trait that leads us to class some of them as certainly true, we avowedly or tacitly take for granted the existence of something beyond consciousness, then, a particular proposition is assumed to be certainly true before we have ascertained what is the distinctive character of the propositions which we call certainly true, and the analysis is vitiated. If we cannot transcend consciousness—if, therefore, what we know as truth must be some mental state, or some combination of mental states, it must be possible for us to say in what way we distinguish this state or these states. The definition of truth must be expressible in terms of consciousness, and, indeed, cannot otherwise be expressed if consciousness cannot be transcended. Clearly, then the metaphysician's first step must be to shut out from his investigation every thing but what is subjective—not taking for granted the existence of any thing objective corresponding to his ideas until he has ascertained what property of his ideas it is which he predicates by calling them true. Let us note the result if he does this.

The words of a proposition are the signs of certain states of consciousness, and the thing alleged by a proposition is the connexion or disconnexion of the states of consciousness signified. When thinking is carried on with precision—when the mental states which we call words, are translated into the mental states they symbolize (which they very frequently are not)—thinking a proposition consists in the occurrence together in consciousness of the subject and predicate. "The bird was brown," is a proposition which implies the union in thought of a particular attribute with a group of other attributes. When the inquirer compares various propositions thus rendered into states of conscious-

ness, he finds that they differ very greatly in respect of the facility with which the states of consciousness are connected and disconnected. The mental state known as *brown* may be united with those mental states which make up the figure known as *bird*, without appreciable effort, or may be separated from them without appreciable effort; the bird may easily be thought of as black or green, or yellow. Contrariwise, such an assertion is "The ice was hot," is one to which he finds much difficulty in making his mind respond. The elements of the proposition cannot be put together in thought without great resistance. Between those other states of consciousness which the word *ice* connotes, and the state of consciousness named *hot*, there is an extremely strong cohesion—a cohesion measured by the resistance to be overcome in thinking of the ice as *hot*. Further, he finds that in many cases the states of consciousness grouped together cannot be separated at all. The idea of pressure cannot be disconnected from the idea of something occupying space. Motion cannot be thought of without an object that moves being at the same time thought of. And then, besides these connexions in consciousness which remain absolute under all circumstances, there are other which remain absolute under special circumstances. Between the element of those more vivid states of consciousness which the manner distinguishes as perceptions, he finds that there is a temporarily indissoluble cohesion. Though when there arises in him that comparatively faint state of consciousness which he calls the idea of a book, he can easily think of the book as red, or brown or green; yet when he has that much stronger consciousness which he calls seeing a book he finds that so long as there continue certain accompanying states of consciousness which he calls the conditions to perception, those several states of consciousness which make up the perception cannot be disunited—he cannot

think of the book as red, or green, or brown; but finds that, along with a certain figure, there absolutely coheres a certain colour.

Still shutting himself up within these limits, let us suppose the inquirer to ask himself what he thinks about these various degrees of cohesion among his states of consciousness—how he names them, and how he behaves toward them. If there comes, no matter whence, the proposition: "The bird was brown," subject and predicate answering to these words spring up together in consciousness; and if there is no opposing proposition, he unites the specified and implied attributes without effort, and believes the proposition. If, however, the proposition is "The bird was necessarily brown," he makes an experiment like those above described, and finding that he can separate the attribute of brownness, and can think of the bird as green or yellow, he does not admit that the bird was necessarily brown. When such a proposition as "The ice was cold" arises in him, the elements of the thought behave as before; and so long as no test is applied, the union of the consciousness of cold with the accompanying states of consciousness, seems to be of the same nature as the union between those answering to the words *broken* and *bird*. But should the proposition be changed into "The ice was necessarily cold," quite a different result happens from that which happened in the previous case. The ideas answering to subject and predicate are here so coherent, that in the absence of careful examination they might pass as inseparable, and the proposition be accepted. But suppose the proposition is deliberately tested by trying whether ice can be thought of as not cold. Great resistance is offered in consciousness to this. Still, by an effort, he can imagine water to have its temperature of congelation higher than blood heat; and can so think of congealed water as hot instead of cold. Now the extremely strong cohesion of states of conscious-

ness, thus experimentally proved by the difficulty of separating them, he finds to be what he calls a strong belief. Once more, in response to the words—"Along with motion there is something that moves," he represents to himself a moving body; and, until he tries an experiment upon it, he may suppose the elements of the representation to be united in the same way as those of the representations instanced above. But supposing the proposition is modified into—"Along with motion there is necessarily something that moves," the response made in thought to these words, discloses the fact that the states of consciousness called up in this case are indissolubly connected in the way alleged. He discovers this by trying to conceive the negation of the proposition—by trying to think of motion as *not* having along with it something that moves; and his inability to conceive this negation is the obverse of his inability to tear asunder the states of consciousness which constitute the affirmation. Those propositions which survive this strain, are the propositions he distinguishes as necessary. Whether or not he means any thing else by this word, he evidently means that in his consciousness the connexions they predicate are, so far as he can ascertain, unalterable. The bare fact is that he submits to them because he has no choice. They rule his thoughts whether he will or not. Leaving out all questions concerning the origin of these connexions—all theories concerning their significations, there remains in the inquirer the consciousness that certain of his states of consciousness are so welded together that all other links in the chain of consciousness yield before these give way.

Continuing rigorously to exclude everything beyond consciousness, let him now ask himself what he means by reasoning? what is the essential nature of an argument? what is the peculiarity of a conclusion? Analysis soon shows him that reasoning is the formation of a

coherent series of states of consciousness. He has found that the thoughts expressed by propositions, vary in the cohesions of their subjects and predicates; and he finds that at every step in an argument, carefully carried on, he tests the strengths of all the connexions asserted and implied. He considers whether the object named really does belong to the class in which it is included—tries whether he can think of it as *not* like the things it is said to be like. He considers whether the attribute alleged is really possessed by all members of the class—tries to think of some member of the class that has *not* the attribute—and he admits the proposition only on finding, by this criticism, that there is a greater degree of cohesion in thought between its elements, than between the elements of the counter proposition. Thus testing the strength of each link in the argument, he at length reaches the conclusion, which he tests in the same way. If he accepts it, he does so because the argument has established in him an indirect cohesion between states of consciousness that were not directly coherent, or not so coherent directly as the argument makes them indirectly. But he accepts it only supposing that the connexion between the two states of consciousness composing it, is not resisted by some stronger counter-connexion. If there happens to be an opposing argument, of which the component thoughts are felt, when tested, to be more coherent; or if, in the absence of an opposing argument, there exists an opposing conclusion, of which the elements have some direct cohesion greater than that which the proffered argument indirectly gives; then the conclusion reached by this argument is not admitted. Thus, a discussion in consciousness proves to be simply a trial of strength between different connexions in consciousness—a systematized struggle serving to determine which are the least coherent states of consciousness. And the result of the struggle is,

that the least coherent states of consciousness separate, while the most coherent remain together—form a proposition of which the predicate persists in rising up in the mind along with its subject—constitute one of the connexions in thought which is distinguished as something known, or as something believed, according to its strength.

What corollary may the inquirer draw, or rather what corollary must he draw, on pushing the analysis to its limit? If there are any indissoluble connexions, he is compelled to accept them. If certain states of consciousness absolutely cohere in certain ways, he is obliged to think them in those ways. The proposition is an identical one. To say that they are necessities of thought is merely another way of saying that their elements cannot be torn asunder. No reasoning can give to these absolute cohesions in thought any better warrant; since all reasoning, being a process of testing cohesions, is itself carried on by accepting the absolute cohesions; and can, in the last resort, do nothing more than present some absolute cohesions in justification of others an act which unwarrantably assumes in the absolute cohesions it offers, a greater value than is allowed to the absolute cohesions it would justify. Here, then, the inquirer comes down to an ultimate mental uniformity—a universal law of his thinking. How completely his thought is subordinated to this law, is shown by the fact that he cannot even represent to himself the possibility of any other law. To suppose the connexions among his states of consciousness to be otherwise determined, is to suppose a smaller force overcoming a greater—a proposition which may be expressed in words but cannot be rendered into ideas. No matter what he calls these indestructible relations, no matter what he supposes to be their meanings, he is completely fettered by them. Their indestructibility is the proof to him that his consciousness is imprisoned within them; and supposing any of them to be

in some way destroyed, he perceives that indestructibility would still be the distinctive character of the bounds that remained—the test of those which he must continue to think.

These results the inquirer arrives at without assuming any other existence than that of his own consciousness. They postulate nothing about mind or matter, subject or object. They leave wholly untouched the questions—what does consciousness imply? and how is thought generated? There is not involved in the analysis any hypothesis respecting the origin of these relations between thoughts—how there come to be feeble cohesions, strong cohesions, and absolute cohesions. Whatever some of the terms used may have seemed to connote, it will be found, on examining each step, that nothing is essentially involved beyond states of mind and the connexions among them, which are themselves other states of mind. Thus far, the argument is not vitiated by any *petitio principii*.

Should the inquirer enter upon the question, How are these facts to be explained? he must consider how any further investigation is to be conducted, and what is the possible degree of validity of its conclusions. Remembering that he cannot transcend consciousness, he sees that anything in the shape of an interpretation must be subordinate to the laws of consciousness. Every hypothesis he entertains in trying to explain himself to himself, being an hypothesis which can be dealt with by him only in terms of his mental states, it follows that any process of explanation must itself be carried on by testing the cohesions among mental states, and accepting the absolute cohesions. His conclusions, therefore, reached only by repeated recognitions of this test of absolute cohesion, can never have any higher validity than this test. It matters not what name he gives to a conclusion—whether he calls it a belief, a theory, a fact, or a truth. These words can be themselves only names for certain rela-

tions among his states of consciousness. Any secondary meanings which he ascribes to them must also be meanings, expressed in terms of consciousness, and therefore subordinate to the laws of consciousness. Hence he has no appeal from this ultimate dictum; and seeing this, he sees that the only possible further achievement is the reconciliation of the dicta of consciousness with one another—the bringing all other dicta of consciousness into harmony with this ultimate dictum.

Here, then, the inquirer discovers a warrant higher than that which any argument can give, for asserting an objective existence. Mysterious as seems the consciousness of something which is yet out of consciousness, he finds that he alleges the reality of this something in virtue of the ultimate law—he is obliged to think it. There is an indissoluble cohesion between each of those vivid and definite states of consciousness which he calls a sensation, and an indefinable consciousness which stands for a mode of being beyond sensation, and separate from himself. When grasping his fork and putting food into his mouth, he is wholly unable to expel from his mind the notion of something which resists the force he is conscious of using; and he cannot suppress the nascent thought of an independent existence keeping apart his tongue and palate, and giving him that sensation of taste which he is unable to generate in consciousness by his own activity. Though self-criticism shows him that he cannot know what this is which lies outside of him; and though he may infer that not being able to say what it is, it is a fiction; he discovers that such self-criticism utterly fails to extinguish the consciousness of it as a reality. Any conclusion into which he argues himself, that there is no objective existence connected with these subjective states, proves to be a mere verbal conclusion to which his thoughts will not respond. The relation survives

every effort to destroy it—is proved by experiment, repeated no matter how often, to be one of which the negation is inconceivable; and therefore one having supreme authority. In vain he endeavours to give it my greater authority by reasoning, for whichever of the two alternatives he sets out with leaves him at the end just where he started. If, knowing nothing more than his own states of consciousness, he declines to acknowledge any thing beyond consciousness until it is proved, he may go on reasoning for ever without getting any further, since the perpetual elaboration of states of consciousness out of states of consciousness, can never produce anything more than states of consciousness. If, contrariwise, he postulates external existence, and considers it as merely postulated, then the whole fabric of his argument, standing upon this postulate, has no greater validity than the postulate gives it *minus* the possible invalidity of the argument itself. The case must not be confounded with those cases in which an hypothesis, or provisional assumption, is eventually proved true by its agreement with facts: for in these cases the facts with which it is found to agree, are facts known in some other way than through the hypothesis: a calculated eclipse of the moon serves as a verification of the hypothesis of gravitation, because its occurrence is observable without taking for granted the hypothesis of gravitation. But when the external world is postulated, and it is supposed that the validity of the postulate may be shown by the explanation of mental phenomena which it furnishes, the vice is, that the process of verification is itself possible only by assuming the thing to be proved.

But now, recognizing the indissoluble cohesion between the consciousness of *self* and an unknown *not self*, as constituting a dictum of consciousness which he is both compelled to accept and is justified by analysis in accepting, it is competent for the inquirer to consider whether, setting out with this dictum, he

can base on it a satisfactory explanation of what he calls knowledge. He finds such an explanation possible. The hypothesis that the more or less coherent relations among his states of consciousness, are generated by experience of the more or less constant relations in something beyond his consciousness, furnishes him with solutions of numerous facts of consciousness not, however of all, if he assumes that this adjustment of inner to outer relations has resulted from his own experiences alone. Nevertheless, if he allows himself to suppose that this moulding of thoughts into correspondence with things, has been going on through countless preceding generations, and that the effects of experiences have been inherited in the shape of modified organic structures, then he is able to interpret all the phenomena. It becomes possible to understand how these persistent connexions among states of consciousness are themselves the products of often repeated experiences, and that even what we know as 'forms of thought' are but the absolute internal uniformities generated by infinite repetitions of absolute external uniformities. It becomes possible also to understand how in the course of our living of these multiplying and widening experiences, there may arise partially wrong connexions in thought, answering to limited converse with things, and that these connexions in thought, temporarily taken for indissoluble ones, may afterwards be made dissoluble by presentation of external relations at variance with them. But even when this occurs, it can afford no ground for questioning the test of indissolubility, since the process by which some connexion previously accepted as indissoluble is broken is simply the establishment of some antagonistic connexion which proves, on a trial of strength to be the stronger—which remains indissoluble when pitted against the other while the other gives way. And this leave the test just where it was, showing only that there is a liability to error as to what *are*

indissoluble connexions. From the very beginning, therefore, to the very end of the explanation, even down to the criticism of its conclusions and the discovery of its errors, the validity of this test must be postulated. Whence it is manifest, as before said, that the whole business of explanation can be nothing more than that of bringing all other dicta of consciousness into harmony with this ultimate dictum.

To the positive justification of a proposition, may be added that negative justification which is derived from the untenability of the counter-proposition. When describing the attitude of pure Empiricism, some indications that its counter-proposition is untenable were given; but it will be well here to state, more specifically, the fundamental objections to which it is open.

If the ultimate test of truth is not that here alleged, then what is the ultimate test of truth? And if there is no ultimate test of truth, then what is the warrant for accepting certain propositions and rejecting others? An opponent who denies the validity of this test, may legitimately decline to furnish any test himself, so long as he does not affirm any thing to be true; but if he affirms some things to be true and others to be not true, his warrant for doing so may fairly be demanded. Let us glance at the possible response to the demand. If asked why he holds it to be unquestionably true that two quantities which differ in unequal degrees from a third quantity are themselves unequal, two replies seem open to him: he may say that this is an ultimate fact of consciousness, or that it is an induction from personal experiences. The reply that it is an ultimate fact of consciousness, raises the question, How is an ultimate fact of consciousness distinguished? All beliefs, all conclusions, all imaginations even, are facts of consciousness; and if some are to be accepted as beyond question because ultimate, while others are not to be accepted as beyond

question because not ultimate, there comes the inevitable inquiry respecting the test of ultimacy. On the other hand, the reply that this truth is known only by induction from personal experiences, suggests the query—On what warrant are personal experiences asserted? The testimony of experience is given only through memory; and its worth depends wholly on the trustworthiness of memory. Is it, then, that the trustworthiness of memory is less open to doubt than the immediate consciousness that two quantities must be unequal if they differ from a third quantity in unequal degrees? This can scarcely be alleged. Memory is notoriously uncertain. We sometimes suppose ourselves to have said things which it turns out we did not say; and we often forget seeing things which it is proved we did see. We speak of many passages of our lives as seeming like dreams; and can vaguely imagine the whole past to be an illusion. We can go much further toward conceiving that our recollections do not answer to any actualities, than we can go toward conceiving the non-existence of Space. But even supposing the deliverances of memory to be above criticism, the most that can be said for the experiences to which memory testifies, is that we are obliged to think we have had them—cannot conceive the negation of the proposition that we have had them; and to say this is to assign the warrant which is repudiated.

A further counter-criticism may be made. Throughout the argument of pure Empiricism, it is tacitly assumed that there may be a Philosophy in which nothing is asserted but what is proved. It proposes to admit into the coherent fabric of its conclusions, no conclusion that is incapable of being established by evidence; and it thus takes for granted that not only may all derivative truths be proved, but also that proof may be given of the truths from which they are derived, down to the very deepest. The result of thus refusing to recognize some fundamental unproved truth, is simply

to leave its fabric of conclusions without a base. The giving proof of any special proposition, is the assimilation of it to some class of propositions known to be true. If any doubt arises respecting the general proposition which is cited in justification of this special proposition, the course is to show that this general proposition is deducible from a proposition or propositions of still greater generality; and if pressed for proof of each such still more general proposition, the only resource is to repeat the process. Is this process endless? If so, nothing can be proved—the whole series of propositions depends on some unassignable proposition. Has the process an end? If so, there must eventually be reached a widest proposition—one which cannot be justified by showing that it is included by any wider—one which cannot be proved. Or to put the argument otherwise: Every inference depends on premises; every premise, if it admits of proof, depends on other premises; and if the proof of the proof be continually demanded, it must either end in an unproved premise, or in the acknowledgment that there cannot be reached any premise on which the entire series of proofs depends. Hence Philosophy, if it does not avowedly stand on some datum underlying reason, must acknowledge that it has nothing on which to stand.

The expression of divergence from Mr. Mill on this fundamental question, I have undertaken with reluctance, only on finding it needful, both on personal and on general grounds, that his statements and arguments should be met. For two reasons, especially, I regret having thus to contend against the doctrine of one whose agreement I should value more than that of any other thinker. In the first place, the difference is, I believe, superficial rather than substantial; for it is in the interests of the Experience-Hypothesis that Mr. Mill opposes the alleged criterion of truth; while it is as harmonizing with the Experience-Hypothesis, and reconciling it with all the facts, that I defend this criterion. In the second place, this lengthened exposition of a single point of difference, unaccompanied by an exposition of the numerous points of concurrence, unavoidably produces an appearance of dissent very far greater than that which exists. Mr. Mill, however, whose unswerving allegiance to truth is on all occasions so conspicuously displayed, will fully recognize the justification for this utterance of disagreement on a matter of such profound importance, philosophically considered; and will not require any apology for the entire freedom with which I have criticised his views while seeking to substantiate my own.

USE AND BEAUTY

(1852)

IN one of his essays, Emerson remarks, that what Nature at one time provides for use, she afterwards turns to ornament; and he cites in illustration the structure of a sea-shell, in which the parts that have for a while formed the mouth are at the next season of growth

left behind, and become decorative nodes and spines.

Ignoring the implied teleology, which does not here concern us, it has often occurred to me that this same remark might be extended to the progress of Humanity. Here, too, the appliances

of one era serve as embellishments to the next. Equally in institutions, creeds, customs, and superstitions, we may trace this evolution of beauty out of what was once purely utilitarian.

The contrast between the feeling with which we regard portions of the Earth's surface still left in their original state, and the feeling with which the savage regarded them, is an instance that comes first in order of time. If any one walking over Hampstead Heath, will note how strongly its picturesqueness is brought out by contrast with the surrounding cultivated fields and the masses of houses lying in the distance, and will further reflect that, had this irregular gorse covered surface extended on all sides to the horizon, it would have looked dreary and prosaic rather than pleasing, he will see that to the primitive man a country so clothed presented no beauty at all. To him it was merely a haunt of wild animals, and a ground out of which roots might be dug. What have become for us places of relaxation and enjoyment, places for afternoon strolls and for gathering flowers—were his places for labour and food, probably arousing in his mind none but utilitarian associations.

Ruined castles afford obvious instances of this metamorphosis of the useful into the beautiful. To feudal barons and their retainers, security was the chief, if not the only end, sought in choosing the sites and styles of their strongholds. Probably they aimed as little at the picturesque as do the builders of cheap brick houses in our modern towns. Yet what were erected for shelter and safety, and what in those early days fulfilled an important function in the social economy, have now assumed a purely ornamental character. They serve as scenes for picnics; pictures of them decorate our drawing rooms, and each supplies its surrounding districts with legends for Christmas Eve.

On following out the train of thought suggested by this last illustration, we may see that not only do the material

exuviae of past social states become the ornaments of our landscapes; but that past habits, manners, and arrangements, serve as ornamental elements in our literature. The tyrannies which, to the serfs who bore them, were harsh and dreary facts, the feuds which, to those who took part in them, were very practical life and death affairs, the mailed, moated, sentinelled security which was irksome to the nobles who needed it, the imprisonments, and tortures, and escapes, which were stern and quite prosaic realities to all concerned in them, have become to us material for romantic tales, material which, when woven into *Ivanhoe* and *Marmion*, serves for amusement in leisure hours, and becomes poetical by contrast with our daily lives.

Thus, also, is it with extinct creeds. Stonehenge, which in the hands of the Druids had a governmental influence over men, is in our day a place for antiquarian excursions, and its attendant priests are worked up into an opera. Greek sculptures, preserved for their beauty in our galleries of art, and copied for the decoration of pleasure grounds and entrance halls, once lived in men's minds as gods demanding obedience, as did also the grotesque idols that now amuse the visitors to our museums.

Equally muted is this change of function in the case of minor superstitions. The fairy lore, which in past times was matter of grave belief, and held sway over people's conduct, has since been transformed into ornament for *A Midsummer Night's Dream*, *The Tempest*, *The Fairy Queen*, and endless small tales and poems, and still affords subjects for children's story books, themes for ballads, and plots for Planche's burlesques. Gnomes, and goblins, and sprites, losing their terrors, give piquancy to the woodcuts in our illustrated edition of the *Arabian Nights*. While ghost-stories, and tales of magic and witchcraft, after serving to amuse boys and girls in their leisure hours, become

matter for jocose allusions that enliven tea-table conversation.

Even our serious literature and our speeches are relieved by ornaments drawn from such sources. A Greek myth is often used as a parallel by which to vary the monotony of some grave argument. The lecturer breaks the dead level of his practical discourse by illustrations drawn from bygone customs, events, or beliefs. And metaphors, similarly derived, give brilliancy to political orations, and to *Times* leading articles.

Indeed, on careful inquiry, I think it will be found that we turn to purposes of beauty most bygone phenomena which are at all conspicuous. The busts of great men in our libraries, and their tombs in our churches; the once useful but now purely ornamental heraldic symbols; the monks, nuns, and convents, which give interest to a certain class of novels; the bronze mediæval soldiers used for embellishing drawing-rooms; the gilt Apollos which recline on time-pieces; the narratives that serve as plots for our great dramas; and the events that afford subjects for historical pictures:—these and such like illustrations of the metamorphosis of the useful into the beautiful, are so numerous as to suggest that, did we search diligently enough, we should find that in some place, or under some circumstance, nearly every notable product of the past has assumed a decorative character.

And here the mention of historical pictures reminds me that an inference may be drawn from all this, bearing directly on the practice of art. It has of late years been a frequent criticism upon our historical painters, that they err in choosing their subjects from the past; and that, would they found a genuine and vital school, they must render on canvas the life and deeds and aims of our own time. If, however, there be any significance in the foregoing facts, it seems doubtful whether this criticism is a just one. For if it be the course of

things that what has performed some active function in society during one era, becomes available for ornament in a subsequent one; it almost follows that, conversely, whatever is performing some active function now, or has very recently performed one, does not possess the ornamental character; and is, consequently, inapplicable to any purpose of which beauty is the aim, or of which it is a needful ingredient.

Still more reasonable will this conclusion appear, when we consider the nature of this process by which the useful is changed into the ornamental. An essential pre-requisite to all beauty is *contrast*. To obtain artistic effect, light must be put in juxtaposition with shade, bright colours with dull colours, a fretted surface with a plain one. *For* passages in music must have *piano* passages to relieve them; concerted pieces need interspersing with solos; and rich chords must not be continuously repeated. In the drama we demand contrast of characters, of scenes, of sentiment, of style. In prose composition an eloquent passage should have a comparatively plain setting; and in poems great effect is obtained by occasional change of versification. This general principle will, I think, explain the transformation of the bygone useful into the present beautiful. It is by virtue of their contrast with our present modes of life, that past modes of life look interesting and romantic. Just as a picnic, which is a temporary return to an aboriginal condition, derives, from its unfamiliarity, a certain poetry which it would not have were it habitual; so, everything ancient gains, from its relative novelty to us, an element of interest. Gradually as, by the growth of society, we leave behind the customs, manners, arrangements, and all the products, material and mental, of a bygone age—gradually as we recede from these so far that there arises a conspicuous difference between them and those we are familiar with; so gradually do they begin to assume to us a poetical aspect, and become applicable

for ornament. And hence it follows that things and events which are close to us, and which are accompanied by associations of ideas not markedly contrasted with our ordinary associations, are *relatively* inappropriate for purposes of art. I say relatively because an incident of modern life or even of daily life may acquire adequate fitness for art purposes by an unusualness of some other kind than that due to unlikeness between past and present.

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HUMAN UNDERSTANDING

II. AN INQUIRY CONCERNING
THE PRINCIPLES OF MORALS

ESSAYS



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BY CHARLES I. GORHAM

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1906

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BIOGRAPHICAL SKETCH

EDINBURGH has given birth to many distinguished sons, and not the least among them was David Hume. His life extended over the greater part of that sceptical eighteenth century of which he was perhaps the finest type. In its first quarter he was born; in its last he died. His parents were living for a time in the capital, where Hume was born on April 26th, 1711. The father, who came of the good old stock of the Humes or Homes, had a little estate in Berwick shire, just within the Scottish border, and, as he died while his three children were young, the property was inherited by David's elder brother. Mrs. Hume, a daughter of Sir David Falconer, appears to have had a modest opinion of her second son's abilities, considering him a good-natured but "uncommon weak-minded" creature. It is not recorded when this maternal judgment was delivered; but, as Hume was almost a middle-aged man before he earned what could fairly be termed an income, the good lady had some reason for thinking that David was, for a Scotchman, not very well fitted to make his way in the world. His genius, however, did not lie on the surface; he was an unusually studious and really precocious boy, and it is perhaps surprising that he was not destined by the family to "wag his paw in a pulpit." Evidently Mrs. Hume did not consider him brilliant enough for that. His youthful bent was towards "divine philosophy," and few men have remained more constant to their first love. But even at sixteen he realised the fleeting nature of human happiness: "My peace of mind is not sufficiently confirmed by philosophy to withstand the

blows of fortune. This greatness and elevation of soul is to be found only in study and contemplation." A boy who could write like that was certain to have something to say for himself when he became a man. And in these money-grubbing days his life has a lesson for most of us.

After a few terms at Edinburgh University, Hume attempted the legal profession. That was by no means to his taste, so he went home to Ninewells, the family property, plunged into study for six years, and then tried commercial life, with a similar result. A letter written (but apparently never sent) to a London physician about this time gives a very frank account of Hume's thoughts and feelings while he was thus "finding his feet." The idea then occurred to him to secure some peaceable retreat in France, where he might study to his heart's content; and, having a slender patrimony, "I resolved," he says, "to make a very rigid frugality supply my deficiency of fortune, to maintain unimpaired my independence, and to regard every object as contemptible except the improvement of my talents in literature."

Time proved the young philosopher's wisdom. From 1734 to 1737 Hume lived in France, and of these years the principal fruit was the *Treatise of Human Nature*, the first two volumes of which appeared in 1739, and the third a year or so later. The public did not accord it a hearty welcome, though it had the honour of being "cut up" by a discerning critic, who, while ruthlessly exposing its faults, recognised its extraordinary promise. Hume in later life lamented the shortcomings of his earliest work; but, as

BIOGRAPHICAL SKETCH

Professor Huxley remarks, considering that it was planned before the author was twenty-one, and composed before he had reached the age of twenty-five, it is probably the most remarkable philosophical work that has ever been written. Its object was to carry to its logical conclusions the system initiated by Locke and Descartes, to place knowledge on a foundation not of hypothesis and invention, but of fact and experience. Hume's views concerning the value of experience, the origin of mental impressions, the relations of cause and effect, and many other questions of philosophy, have had immense weight with later thinkers, and have constituted the basis of modern speculation.

In 1740 Hume formed a valuable friendship with Adam Smith, then a youth of seventeen, whose intellectual promise induced Hume to send him a copy of the *Treatise*. In the following year the *Essays, Moral and Political*, were published. These are not merely admirably written, but contain many instances of original and sagacious thought.

An engagement as companion to a young nobleman of deficient intellect turned out unfortunately for Hume, though not through any fault of his. Shortly afterwards he became secretary, and later Judge Advocate, to General St. Clair, and saw a little of the pomp and circumstance of a very inglorious war. The salary was that of a respectable clerk, but the experience was valuable to the future historian. The expedition was intended for Canada, but was suddenly diverted to the coast of France. With better luck it might perhaps have captured a town; but the proceedings were ill managed, and the forces very willingly returned home.

In 1748 Hume again went abroad, this time as secretary and *aide-de-camp* to General St. Clair, who had been entrusted with a mission to the Austrian court at Turin. Hume's letters home evince all the mental detachment of the true philo-

sopher, scarcely noticing the military operations then in progress, and describing Cologne without mentioning its cathedral. The numerous principalities of Germany astonished him. "We have had," he remarks rather wittily, "more masters than many of these princes have subjects." It is a shrewd forecast that, if Germany were but united, it would be the greatest power in the world!

Hume returned to London in 1749, and about this time was plunged into deep sorrow by the death of his mother. A pious friend, Mr. Boyle, finding him in tears, assured Hume he would not have suffered such grief had he not "thrown off the principles of religion." Huxley's comment on the anecdote is: "Mr. Boyle's experience of mankind must have been small if he had not seen the firmest of believers overwhelmed with grief at a like loss, and as completely inconsolable."

While Hume was abroad the famous *Inquiry Concerning Human Understanding* was published; but, in the stir then being caused by Middleton's *Free Inquiry*, the work attracted little notice. During the next two years Hume resided at Ninewells, busily engaged upon the *Inquiry Concerning the Principles of Morals*, published in 1751, the *Political Discourses*, which appeared in the following year, and the *Dialogues on Natural Religion*. The last of these underwent frequent revision, and was not issued till after the author's death. In this work the processes of religious faith are analysed with wonderful subtlety, and, though the thinker of to-day may consider that Hume concedes too much to theism and its argument from design, he will recognise the sympathy and penetration with which the views of the three speakers are expressed. The *Discourses* take a high rank in political economy, anticipating as they did many of the chief doctrines of Adam Smith's classic work, *The Wealth of Nations*, published twenty-four years later. The *Inquiry Concerning Morals*, which Hume considered his best work,

endeavours, with fair success, to adjust the claims of reason and feeling. Its dominant idea may be termed utility interpreted by sentiment. Here, again, Hume anticipated a great thinker of the next century, John Stuart Mill, in advocating not merely the pursuit of individual good, but the well-being of the race at large. The *Morals* and the *Understanding* comprise the whole of the *Treatise*, re-written in the light of Hume's later mental growth. He was, surely without just reason, a little ashamed of the *Treatise*, and would gladly have suppressed it, though so good a judge as Professor Huxley doubts whether the maturer productions are any substantial improvement upon the earlier one. Hume himself desired that the works comprised in the present volume should "alone be regarded as containing his philosophical sentiments and principles."

Hume was now over forty years of age. He had preserved his independence, he had lived up to the ideals of his youth, and his frugality had enabled him to accumulate something over £1,000. On the interest of this he was prepared to live; his wants were few, he had his books, his mind was at its best, his love of study was as keen as ever. He settled in Edinburgh, in a set of rooms in one of the vast houses of the Old Town. In 1752 he was elected Librarian of the Faculty of Advocates, with a small salary, but the command of a large library. The salary he handed over to a poor blind poet, named Blacklock, in whom he for long took a most generous interest. Dr. Carlyle wrote: "To my certain knowledge he gave every farthing of his salary to persons in distress." His great ambition was now, with the aid of the Advocates' Library, to write a *History of England*, and in 1754 appeared the first volume, which, after the public wrath had cooled down a little, had but an indifferent sale. The second volume was published two years later, the *Natural History of Religion* in 1757; and two more volumes of the *History of*

England were in 1759 issued in London, where Hume resided for nearly twelve months.

In 1763 Hume was asked by Lord Hertford to join his embassy to France, with the promise of the secretaryship. With some reluctance the philosopher tore himself away from his books, the salary of £1,000 a year probably turning the scale. The friendship of a nobleman well known for virtue and piety was not to be despised, and a pension of £200 a year was a handsome addition to the means Hume had been steadily accumulating. When his diplomatic duties were over Hume was appointed Under Secretary of State for Scotland, an office which he held for two years, and on retiring he found himself "very opulent," with an income of £1,000 per annum—a happy condition which would no doubt have modified his mother's opinion of his capacity had she been living.

The remainder of Hume's life was passed in the venerable city which he loved so well. He built himself a house in Edinburgh, and lived peacefully and happily in the society of cultivated and congenial friends. For London and its people Hume had a hearty dislike, and thought the taste for literature was extinct among the "barbarians who inhabit the banks of the Thames." He longed to see the American colonies in revolt, the national bankruptcy of the English, internal rebellion, and a few other trifles of that sort. Perhaps, after all, these asperities were not very deeply rooted in Hume's kindly nature. Like Burke a few years later, he became alarmed at the progress of democratic ideas, and distrusted the rude strength of an ignorant people, while paying little heed to the misgovernment which rendered it formidable.

During the last year or two of his life Hume suffered from an internal disorder, from which he died on August 25th, 1776, less than two months after the American colonies had gratified his wish. He was

buried, as he had desired, on the famous Calton Hill of Edinburgh, in the presence of a large crowd of people, some of whom, says Huxley, "seem to have anticipated for his body the fate appropriate to the remains of wizards and necromancers." The £6,000 which Hume possessed he disposed of among his relatives and friends, a sum being left for building a bridge over the river near Ninewells.

Hume's life had in it more than the common share of happiness. Yet no man ever met death with a more calm and manly resignation. His physician, Dr. Black, in a letter to Adam Smith, related that Hume "continued to the last to be perfectly sensible, and free from much pain or feelings of distress. He never dropped the smallest expression of impatience; but when he had occasion to speak to the people about him, always did it with affection and tenderness..... He died in such a happy composure of mind that nothing could exceed it."

The following tribute from the pen of Adam Smith himself is so unaffectedly sincere that it can scarcely be omitted:

Thus died our most excellent and never-to-be-forgotten friend, concerning whose philosophical opinions men will, no doubt, judge variously, everyone approving or condemning them according as they happen to coincide or disagree with his own, but concerning whose character and conduct there can scarce be a difference of opinion. His temper, indeed, seemed to be more happily balanced, if I may be allowed such an expression, than that perhaps of any other man I have ever known. Even in the lowest state of his fortune his great and necessary frugality never hindered him from exercising upon proper occasions acts both of charity and generosity. It was a frugality founded not upon avarice, but upon the love of independency. The extreme gentleness of his nature never weakened either the firmness of his mind or the steadiness of his resolutions. His constant pleasantry was the genuine effusion of good nature and good humour, tempered with delicacy and modesty, and without even the slightest tincture of malignity, so frequently the dis-

agreeable source of what is called wit in other men. It never was the meaning of his raillery to mortify; and, therefore, far from offending, it seldom failed to please and delight even those who were frequently the objects of it; there was not, perhaps, any one of all his great and amiable qualities which contributed more to endear his conversation. And that gaiety of temper, so agreeable in society, but which is so often accompanied with frivolous and superficial qualities, was in him certainly attended with the most severe application, the most extensive learning, the greatest depth of thought, and a capacity in every respect the most comprehensive. Upon the whole, I have always considered him, both in his lifetime and since his death, as approaching as nearly to the idea of a perfectly wise and virtuous man as perhaps the nature of human frailty will permit.

Hume was a representative sceptic, at once the spiritual son of Locke and the spiritual father of Kant, and the founder of modern Agnosticism. The mysterious nexus between the mind of man and the material world he never claimed the ability to discover. If he declined to admit that we can ever know the ultimate truth, he also declined to affirm that we know nothing. As Professor Knight has said: "Hume's was rather the scepticism which stood apart, and finally declined to speculate on ultimate problems, feeling that the entire region was one of haze." That is the scepticism of the wise, the scepticism which stands on the impregnable rock of fact and truth. Yet in the present year a Christian writer, who is old enough to know better, has stigmatised it as the "blind and stupid infidelity of Hume." The present volume, which comprises the most mature examples of Hume's philosophical thought, may help to enlighten the public as to the truth of that charge. Hume stands high in the long line of great thinkers who have done more for the intellectual progress of humanity than humanity at large realises.

CHARLES T. GORHAM.

AN INQUIRY CONCERNING HUMAN UNDERSTANDING

SECTION I.

OF THE DIFFERENT SPECIES OF PHILOSOPHY

MORAL philosophy, or the science of human nature, may be treated after two different manners; each of which has its peculiar merit, and may contribute to the entertainment, instruction, and reformation of mankind. The one considers man chiefly as born for action, and as influenced in his measures by taste and sentiment; pursuing one object, and avoiding another, according to the value which these objects seem to possess, and according to the light in which they present themselves. As virtue, of all objects, is allowed to be the most valuable, this species of philosophers paint her in the most amiable colours; borrowing all helps from poetry and eloquence, and treating their subject in an easy and obvious manner, and such as is best fitted to please the imagination and engage the affections. They select the most striking observations and instances from common life; place opposite characters in a proper contrast; and alluring us into the paths of virtue by the views of glory and happiness, direct our steps in these paths by the soundest precepts and most illustrious examples. They make us *feel* the difference between vice and virtue; they excite and regulate our sentiments; and, so they can but bend our hearts to the love of probity and true honour, they think that they have fully attained the end of all their labours.

The other species of philosophers consider man in the light of a reasonable rather than an active being, and endeavour to form his understanding more than cultivate his manners. They regard human nature as a subject of speculation, and with a narrow scrutiny examine it, in order to find those principles which regulate our understanding, excite our sentiments, and make us to approve or blame any particular object, action, or behaviour. They think it a reproach to all literature that philosophy should not yet have fixed, beyond controversy, the foundation of morals, reasoning, and criticism; and should for ever talk of truth and falsehood, vice and virtue, beauty and deformity, without being able to determine the source of these distinctions. While they attempt this arduous task, they are deterred by no difficulties; but, proceeding from particular instances to general principles, they still push on their inquiries to principles more general, and rest not satisfied till they arrive at those original principles by which, in every science, all human curiosity must be bounded. Though their speculations seem abstract, and even unintelligible to common readers, they aim at the approbation of the learned and the wise, and think themselves sufficiently compensated for the labour of their whole lives if they can discover some hidden truths which may contribute to the instruction of posterity.

It is certain that the easy and obvious philosophy will always, with the generality of mankind, have the preference above the accurate and abstruse, and by many will be recommended not only as more agreeable, but more useful, than the other. It enters more into common life; moulds the heart and affections; and, by

touching those principles which actuate men, reforms their conduct, and brings them nearer to that model of perfection which it describes. On the contrary, the abstruse philosophy, being founded on a turn of mind which cannot enter into business and action, vanishes when the philosopher leaves the shade and comes into open day; nor can its principles easily retain any influence over our conduct and behaviour. The feelings of our heart, the agitation of our passions, the vehemence of our affections, dissipate all its conclusions, and reduce the profound philosopher to a mere plebeian.

This also must be confessed, that the most durable as well as justest fame has been acquired by the easy philosophy, and that abstract reasoners seem hitherto to have enjoyed only a momentary reputation, from the caprice or ignorance of their own age, but have not been able to support their renown with more equitable posterity. It is easy for a profound philosopher to commit a mistake in his subtle reasonings; and one mistake is the necessary parent of another, while he pushes on his consequences, and is not deterred from embracing any conclusion by its unusual appearance, or its contradiction to popular opinion. But a philosopher who purposes only to represent the common sense of mankind in more beautiful and more engaging colours, if by accident he falls into error, goes no farther; but, renewing his appeal to common sense and the natural sentiments of the mind, returns into the right path, and secures himself from any dangerous illusions. The fame of Cicero flourishes at present; but that of Aristotle is utterly decayed. La Bruyère passes the seas, and still maintains his reputation. But the glory of Malebranche is confined to his own nation and to his own age. And Addison, perhaps, will be read with pleasure when Locke shall be entirely forgotten.

The mere philosopher is a character which is commonly but little acceptable in the world, as being supposed to contribute nothing either to the advantage or pleasure of society; while he lives remote from communication with mankind, and is wrapped up in principles and notions equally remote from their comprehension. On the other hand, the mere ignorant is still more despised; nor is anything deemed a surer sign of an liberal genius in an age and nation

where the sciences flourish than to be entirely destitute of all relish for those noble entertainments. The most perfect character is supposed to lie between those extremes; retaining an equal ability and taste for books, company, and business; preserving in conversation that discernment and delicacy which arise from polite letters; and in business, that probity and accuracy which are the natural result of a just philosophy. In order to diffuse and cultivate so accomplished a character, nothing can be more useful than compositions of the easy style and manner, which draw not too much from life, require no deep application or retreat to be comprehended, and send back the student among mankind full of noble sentiments and wise precepts, applicable to every exigence of human life. By means of such compositions, virtue becomes amiable, science agreeable, company instructive, and retirement entertaining.

Man is a reasonable being, and, as such, receives from science his proper food and nourishment. But so narrow are the bounds of human understanding that little satisfaction can be hoped for in this particular, either from the extent or security of his acquisitions. Man is a sociable no less than a reasonable being. But neither can he always enjoy company agreeable and amusing, or preserve the proper relish for them. Man is also an active being; and from that disposition, as well as from the various necessities of human life, must submit to business and occupation. But the mind requires some relaxation, and cannot always support its bent to care and industry. It seems, then, that nature has pointed out a mixed kind of life as most suitable to the human race, and secretly admonished them to allow none of these biases to *draw* too much, so as to incapacitate them for other occupations and entertainments. Indulge your passion for science, says she, but let your science be human, and such as may have a direct reference to action and society. Abstruse thought and profound researches I prohibit, and will severely punish, by the pensive melancholy which they introduce, by the endless uncertainty in which they involve you, and by the cold reception which your pretended discoveries shall meet with, when communicated. Be a philosopher; but, amidst all your philosophy, be still a man.

Were the generality of mankind contented to prefer the easy philosophy to the abstract and profound, without throwing any blame or contempt on the latter, it might not be improper, perhaps, to comply with this general opinion, and allow every man to enjoy, without opposition, his own taste and sentiment. But as the matter is often carried farther, even to the absolute rejecting of all profound reasonings, or what is commonly called *metaphysics*, we shall now proceed to consider what can reasonably be pleaded in their behalf.

We may begin with observing that one considerable advantage which results from the accurate and abstract philosophy is its subserviency to the easy and humane, which, without the former, can never attain a sufficient degree of exactness in its sentiments, precepts, or reasonings. All polite letters are nothing but pictures of human life in various attitudes and situations; and inspire us with different sentiments, of praise or blame, admiration or ridicule, according to the qualities of the object which they set before us. An artist must be better qualified to succeed in this undertaking who, besides a delicate taste and a quick apprehension, possesses an accurate knowledge of the internal fabric, the operations of the understanding, the workings of the passions, and the various species of sentiment which discriminate vice and virtue. How painful soever this inward search or inquiry may appear, it becomes, in some measure, requisite to those who would describe with success the obvious and outward appearances of life and manners. The anatomist presents to the eye the most hideous and disagreeable objects; but his science is useful to the painter in delineating even a Venus or an Helen. While the latter employs all the richest colours of his art, and gives his figures the most graceful and engaging airs, he must still carry his attention to the inward structure of the human body, the position of the muscles, the fabric of the bones, and the use and figure of every part or organ. Accuracy is, in every case, advantageous to beauty, and just reasoning to delicate sentiment. In vain would we exalt the one by depreciating the other.

Besides, we may observe, in every art or profession, even those which most concern life or action, that a spirit of accuracy, however acquired, carries all

of them nearer their perfection, and renders them more subservient to the interests of society. And though a philosopher may live remote from business, the genius of philosophy, if carefully cultivated by several, must gradually diffuse itself throughout the whole society, and bestow a similar correctness on every art and calling. The politician will acquire greater foresight and subtlety in the subdividing and balancing of power; the lawyer more method and finer principles in his reasonings; and the general more regularity in his discipline, and more caution in his plans and operations. The stability of modern governments above the ancient, and the accuracy of modern philosophy, have improved, and probably will still improve, by similar gradations.

Were there no advantage to be reaped from these studies, beyond the gratification of an innocent curiosity, yet ought not even this to be despised; as being one accession to those few safe and harmless pleasures which are bestowed on the human race. The sweetest and most inoffensive path of life leads through the avenues of science and learning; and whoever can either remove any obstructions in this way, or open up any new prospect, ought so far to be esteemed a benefactor to mankind. And though these researches may appear painful and fatiguing, it is with some minds as with some bodies, which, being endowed with vigorous and florid health, require severe exercise, and reap a pleasure from what, to the generality of mankind, may seem burdensome and laborious. Obscurity, indeed, is painful to the mind as well as to the eye; but to bring light from obscurity, by whatever labour, must needs be delightful and rejoicing.

But this obscurity in the profound and abstract philosophy is objected to, not only as painful and fatiguing, but as the inevitable source of uncertainty and error. Here, indeed, lies the justest and most plausible objection against a considerable part of metaphysics, that they are not properly a science, but arise either from the fruitless efforts of human vanity, which would penetrate into subjects utterly inaccessible to the understanding, or from the craft of popular superstitions, which, being unable to defend themselves on fair ground, raise these intangling brambles to cover and protect their weakness. Chaced from the open country,

OF THE DIFFERENT SPECIES OF PHILOSOPHY

These robbers fly into the forest, and lie in wait to break in upon every unguarded avenue of the mind, and overwhelm it with religious fears and prejudices. The likeliest antagonist, if he remit his watch a moment, is oppressed. And many through cowardice and folly, open the gates to the enemies and willingly receive them with reverence and submission, as their legal sovereigns.

But is this a sufficient reason why philosophers should desist from such researches, and leave superstition still in possession of her retreat? Is it not proper to draw an opposite conclusion and perceive the necessity of carrying the war into the most secret recesses of the enemy? In vain do we hope that men, from frequent disappointment will at last abandon such vain sciences and discover the proper province of human reason. For, besides that many persons find it sensible in interest perpetually to read all such topics, besides that I say the motive of blind despair can never reasonably have place in the sciences, since however unsuccessful former attempts may have proved there is still room to hope that the industrious good fortune or improved sagacity of succeeding generations may reach discoveries unknown to former ages. Each adventurous genius will leap at the arduous prize and find himself stimulated rather than discouraged by the failures of his predecessors, while he hopes that the glory of achieving so hard an adventure is reserved for him alone. The only method of freeing learning at once from these abstruse questions is to inquire seriously into the nature of human understanding, and show, from an exact analysis of its powers and capacities, that it is by no means fitted for such remote and abstruse subjects. We must submit to the fatigue in order to live at ease ever after, and must cultivate true metaphysics with some care, in order to destroy the false and adulterate. Indolence which to some persons, affords a safeguard against this deceitful philosophy is with others, overbalanced by curiosity, and despair, which at some moments prevails, may give place afterwards to sanguine hopes and expectations. Accurate and just reasoning is the only catholic remedy, suited for all persons and all dispositions, and is alone able to subvert that abstruse philosophy and metaphysical jargon which being mixed up with popular

superstition, renders it in a manner impenetrable to careless reasoners, and gives it the air of science and wisdom.

Besides this advantage of rejecting, after deliberate inquiry, the most uncertain and disagreeable part of learning, there are many positive advantages which result from an accurate scrutiny into the powers and faculties of human nature. It is remarkable concerning the operations of the mind that, though most infinitely present to us yet whenever they become the object of reflection, they seem involved in obscurity, nor can the eye readily find those lines and boundaries which determine and distinguish them.

The objects are too fine to remain long in the same aspect or situation and must be apprehended in a moment by a superior penetration derived from nature and improved by habit and reflection. It becomes here to no considerable part of science to study to know the different parts of the mind to separate them from each other to class them under their proper heads and to correct all that

is mingled in which they lie involved when made the object of reflection and inquiry. This task of ordering and distinguishing which has no merit when performed with regard to external bodies the objects of our senses rises in its value when directed towards the operation of the mind in proportion to the difficulty and labour which we meet with in performing it. And if we can go no further than this mental geography, or delineation of the distinct parts and powers of the mind it is at least a satisfaction to know it, and the more obvious this science may appear (and it is by no means obvious) the more contemptible still must the ignorance of it be esteemed in all pretenders to learning and philosophy.

Nor can there remain any suspicion that this science is uncertain and chimerical unless we should entertain such a scepticism as is entirely subversive of all speculation, and even action. It cannot be doubted that the mind is endowed with several powers and faculties, that these powers are distinct from each other, that what is really distinct to the immediate perception may be distinguished by reflection, and consequently, that there is a truth and falsehood in all propositions on this subject, and a truth and falsehood which lie not beyond the compass of human understanding. There are many

obvious distinctions of this kind, such as those between the will and understanding, the imagination and passions, which fall within the comprehension of every human creature; and the finer and more philosophical distinctions are no less real and certain, though more difficult to be comprehended. Some instances, especially late ones, of success in these inquiries may give us a juster notion of the certainty and solidity of this branch of learning. And shall we esteem it worthy the labour of a philosopher to give us a true system of the planets and adjust the position and order of those remote bodies, while we affect to overlook those who, with so much success, delineate the parts of the mind, in which we are so intimately concerned?

But may we not hope that philosophy, if cultivated with care and encouraged by the attention of the public, may carry its researches still farther, and discover, at least in some degree, the secret springs and principles by which the human mind is actuated in its operations? Astronomers had long contented themselves with proving from the phenomena the true motions, order, and magnitude of the heavenly bodies, till a philosopher at last arose who seems, from the happiest reasoning, to have also determined the laws and forces by which the revolutions of the planets are governed and directed. The like has been performed with regard to other parts of nature. And there is no reason to despair of equal success in our inquiries concerning the mental powers and economy, if prosecuted with equal capacity and caution. It is probable that one operation and principle of the mind depends on another, which, again, may be resolved into one more general and universal. And how far these researches may possibly be carried it will be difficult for us before, or even after, a careful trial exactly to determine. This is certain, that attempts of this kind are every day made even by those who philosophise the most negligently. And nothing can be more requisite than to enter upon the enterprise with thorough care and attention; that, if it lie within the compass of human understanding, it may at last be happily achieved; if not, it may, however, be rejected with some confidence and security. This last conclusion surely is not desirable, nor ought it to be embraced too rashly. For how much must we diminish from the beauty and value of this species of philosophy

upon such a supposition? Moralists have hitherto been accustomed, when they considered the vast multitude and diversity of those actions that excite our approbation or dislike, to search for some common principle on which this variety of sentiments might depend. And though they have sometimes carried the matter too far by their passion for some one general principle, it must, however, be confessed that they are excusable in expecting to find some general principles into which all the vices and virtues were justly to be resolved. The like has been the endeavour of critics, logicians, and even politicians. Nor have their attempts been wholly unsuccessful; though perhaps longer time, greater accuracy, and more ardent application may bring these sciences still nearer their perfection. To throw up at once all pretensions of this kind may justly be deemed more rash, precipitate, and dogmatical than even the boldest and most affirmative philosophy that has ever attempted to impose its crude dictates and principles on mankind.

What though these reasonings concerning human nature seem abstract and of difficult comprehension? This affords no presumption of their falsehood. On the contrary, it seems impossible that what has hitherto escaped so many wise and profound philosophers can be very obvious and easy. And, whatever pains these researches cost us, we may think ourselves sufficiently rewarded not only in point of profit, but of pleasure, if by this means we can make any addition to our stock of knowledge in subjects of such unspeakable importance.

But as, after all, the abstractedness of these speculations is no recommendation, but rather a disadvantage to them, and as this difficulty may perhaps be surmounted by care and art and the avoiding of all unnecessary detail, we have, in the following inquiry, attempted to throw some light upon subjects from which uncertainty has hitherto deterred the wise and obscurity the ignorant. Happy if we can unite the boundaries of the different species of philosophy by reconciling profound inquiry with clearness and truth with novelty! And still more happy if, reasoning in this easy manner, we can undermine the foundations of an abstruse philosophy, which seems to have hitherto served only as a shelter to superstition and a cover to absurdity and error!

SECTION II.

OF THE ORIGIN OF IDEAS

EVERYONE will readily allow that there is a considerable difference between the perceptions of the mind when a man feels the pain of excessive heat, or the pleasure of moderate warmth, and when he afterwards recalls to his memory this sensation, or anticipates it by his imagination. These faculties may mimic or copy the perceptions of the senses; but they never can entirely reach the force and vivacity of the original sentiment. The utmost we say of them, even when they operate with greatest vigour, is that they represent their object in so lively a manner that we could almost say we feel or see it. But, except the mind be disordered by disease or madness, they never can arrive at such a pitch of vivacity as to render these perceptions altogether indistinguishable. All the colours of poetry, however splendid, can never paint natural objects in such a manner as to make the description be taken for a real landscape. The most lively thought is still inferior to the duldest sensation.

We may observe a like distinction to run through all the other perceptions of the mind. A man in a fit of anger is actuated in a very different manner from one who only thinks of that emotion. If you tell me that any person is in love, I easily understand your meaning, and form a just conception of his situation, but never can mistake that conception for the real disorders and agitations of the passion. When we reflect on our past sentiments and affections, our thought is a faithful mirror, and copies its objects truly; but the colours which it employs are faint and dull in comparison of those in which our original perceptions were clothed. It requires no nice discernment or metaphysical head to mark the distinction between them.

Here, therefore, we may divide all the perceptions of the mind into two classes or species, which are distinguished by their different degrees of force and vivacity. The less forcible and lively are commonly denominated *thoughts* or *ideas*.

The other species want a name in our language, and in most others; I suppose, because it was not requisite for any but philosophical purposes to rank them under a general term or appellation. Let us, therefore, use a little freedom, and call them *impressions*; employing that word in a sense somewhat different from the usual. By the term *impression*, then, I mean all our more lively perceptions, when we hear, or see, or feel, or love, or hate, or desire, or will. And impressions are distinguished from ideas, which are the less lively perceptions of which we are conscious when we reflect on any of those sensations or movements above mentioned.

Nothing at first view may seem more unbounded than the thought of man, which not only escapes all human power and authority, but is not even restrained within the limits of nature and reality. To form monsters, and join incongruous shapes and appearances, costs the imagination no more than to conceive the most natural and familiar objects. And while the body is confined to one planet, along which it creeps with pain and difficulty, the thought can in an instant transport us into the most distant regions of the universe, or even beyond the universe, into the unbounded chaos where nature is supposed to lie in total confusion. What never was seen, or heard of, may yet be conceived; nor is anything beyond the power of thought, except what implies an absolute contradiction.

But though our thought seems to possess this unbounded liberty, we shall find, upon a nearer examination, that it is really confined within very narrow limits, and that all this creative power of the mind amounts to no more than the faculty of compounding, transposing, augmenting, or diminishing the materials afforded us by the senses and experience. When we think of a golden mountain, we only join two consistent ideas, *gold* and *mountain*, with which we were formerly acquainted. A virtuous horse

we can conceive, because, from our own feeling, we can conceive virtue; and this we may unite to the figure and shape of a horse, which is an animal familiar to us. In short, all the materials of thinking are derived either from our outward or inward sentiment; the mixture and composition of these belongs alone to the mind and will. Or, to express myself in philosophical language, all our ideas or more feeble perceptions are copies of our impressions or more lively ones.

To prove this, the two following arguments will, I hope, be sufficient. First: when we analyse our thoughts or ideas, however compounded or sublime, we always find that they resolve themselves into such simple ideas as were copied from a precedent feeling or sentiment. Even those ideas which, at first view, seem the most wide of this origin are found, upon a nearer scrutiny, to be derived from it. The idea of God, as meaning an infinitely intelligent, wise, and good Being, arises from reflecting on the operations of our own mind, and augmenting, without limit, those qualities of goodness and wisdom. We may prosecute this inquiry to what length we please, where we shall always find that every idea which we examine is copied from a similar impression. Those who would assert that this position is not universally true nor without exception have only one, and that an easy, method of refuting it—by producing that idea which, in their opinion, is not derived from this source. It will then be incumbent on us, if we would maintain our doctrine, to produce the impression, or lively perception, which corresponds to it.

Secondly: if it happen, from a defect of the organ, that a man is not susceptible of any species of sensation, we always find that he is as little susceptible of the correspondent ideas. A blind man can form no notion of colours; a deaf man of sounds. Restore either of them that sense in which he is deficient; by opening this new inlet for his sensations you also open an inlet for the ideas, and he finds no difficulty in conceiving these objects. The case is the same if the object proper for exciting any sensation has never been applied to the organ. A Laplander or negro has no notion of the relish of wine. And though there are few or no instances of a like deficiency in the mind where a person has never felt or is wholly incapable of a sentiment or

passion that belongs to his species, yet we find the same observation to take place in a less degree. A man of mild manners can form no idea of inveterate revenge or cruelty; nor can a selfish heart easily conceive the heights of friendship and generosity. It is readily allowed that other beings may possess many senses of which we can have no conception, because the ideas of them have never been introduced to us in the only manner by which an idea can have access to the mind—to wit, by the actual feeling and sensation.

There is, however, one contradictory phenomenon which may prove that it is not absolutely impossible for ideas to arise independent of their correspondent impressions. I believe it will readily be allowed that the several distinct ideas of colour which enter by the eye, or those of sound which are conveyed by the ear, are really different from each other, though, at the same time, resembling. Now, if this be true of different colours, it must be no less so of the different shades of the same colour; and each shade produces a distinct idea, independent of the rest. For, if this should be denied, it is possible, by the continual gradation of shades, to run a colour insensibly into what is most remote from it; and if you will not allow any of the means to be different, you cannot, without absurdity, deny the extremes to be the same. Suppose, therefore, a person to have enjoyed his sight for thirty years, and to have become perfectly acquainted with colours of all kinds except one particular shade of blue, for instance, which it never has been his fortune to meet with. Let all the different shades of that colour except that single one be placed before him, descending gradually from the deepest to the lightest, it is plain that he will perceive a blank where that shade is wanting, and will be sensible that there is a greater distance in that place between the contiguous colours than in any other. Now, I ask whether it be possible for him, from his own imagination, to supply this deficiency, and raise up to himself the idea of that particular shade, though it had never been conveyed to him by his senses? I believe there are few but will be of opinion that he can; and this may serve as a proof that the simple ideas are not always, in every instance, derived from the correspondent impressions, though this instance is so singular that it is

scarcely worth our observing, and does not merit that for it alone we should alter our general maxim.

Here, therefore, is a proposition which not only seems in itself simple and intelligible, but, if a proper use were made of it, might render every dispute quickly intelligible, and banish all that jargon which has so long taken possession of metaphysical reasonings and drawn disgrace upon them. All ideas, especially abstract ones, are naturally faint and obscure; the mind has but a slender hold of them, they are apt to be confounded with other resembling ideas, and when we have often employed any term, though without a distinct meaning, we are apt to imagine it has a determinate idea annexed to it.

On the contrary, all impressions—that is, all sensations, either outward or inward—are strong and vivid; the limits between them are more exactly determined; nor is it easy to fall into any error or mistake with regard to them. When we entertain, therefore, any suspicion that a philosophical term is employed without any meaning or idea (as is but too frequent), we need but inquire, *from what impression is that supposed idea derived?* And if it be impossible to assign any, this will serve to confirm our suspicion.¹ By bringing ideas into so clear a light we may reasonably hope to remove all dispute which may arise concerning their nature and reality.

¹ It is probable that no more was meant by those who denominated ideas than that all ideas were copies of our impressions, though it must be confessed that the terms which they employed were not chosen with such caution, nor so exactly defined, as to prevent all mistakes about their distinction. For what is meant by *innate*? If innate be equivalent to natural, then all the perceptions and ideas of the mind must be allowed to be innate or natural in whatever sense we take the latter word, whether in opposition to what is uncommon, artificial or miraculous. If by innate be meant contemporary to our birth, the dispute seems to be frivolous; nor is it worth while to inquire at what time thinking begins, whether before or after our birth. Again, the word *idea* seems to be commonly taken in a very loose sense by Locke and others, standing for any of our perceptions, our sensations and passions, as well as thoughts. Now in this sense I should desire to know what can be meant by saying that self-love or resentment or the passion between the sexes is not innate? But admitting these terms *impressions* and *ideas* in the sense above explained, and understanding by *innate* what is original or copied from no preceding perception, then may we assert that all our impressions are innate, and our ideas not innate. To be rigorous, I must own it to be my opinion that Locke was betrayed into this question by the Schoolmen who making use of unchosen terms draw out their disputes to tedious length without ever touching the point in question. A like ambiguity and circumlocution seem to run through the philosophers' reasonings on this, as well as most other subjects.

SECTION III.

OF THE ASSOCIATION OF IDEAS

It is evident that there is a principle of connection between the different thoughts or ideas of the mind, and that, in their appearance to the memory or imagination, they introduce each other with a certain degree of method and regularity. In our more serious thinking or discourse this is so observable that any particular thought which breaks in upon the regular tract or chain of ideas is immediately remarked and rejected. And even in our wildest and most wandering reveries—nay, in our very dreams—we shall find, if we reflect, that the imagination ran not together at adventures, but that there was still a connection upheld among the

different ideas which succeeded each other. Were the loosest and freest conversation to be transcribed, there would immediately be observed something which connected it in all its transitions. Or, where this is wanting, the person who broke the thread of discourse might still inform you that there had secretly revolved in his mind a succession of thought which had gradually led him from the subject of conversation. Among different languages, even where we cannot suspect the least connection or communication, it is found that the words expressive of ideas the most compounded do yet nearly correspond to each other: a

certain proof that the simple ideas, comprehended in the compound ones, were bound together by some universal principle, which had an equal influence on all mankind.

Though it be too obvious to escape observation, that different ideas are connected together, I do not find that any philosopher has attempted to enumerate or class all the principles of association - a subject, however, that seems worthy of curiosity. To me, there appear to be only three principles of connection among ideas - namely, *resemblance*, *contiguity* in time or place, and *cause or effect*.

That these principles serve to connect ideas will not, I believe, be much doubted. A picture naturally leads our thoughts to the original; the mention of one apartment in a building naturally

introduces an inquiry or discourse concerning the others;² and if we think of a wound we can scarcely forbear reflecting on the pain which follows it.³ But that this enumeration is complete, and that there are no other principles of association except these, may be difficult to prove to the satisfaction of the reader, or even to a man's own satisfaction. All we can do in such cases is to run over several instances and examine carefully the principle which binds the different thoughts to each other, never stopping till we render the principle as general as possible.⁴ The more instances we examine, and the more care we employ, the more assurance shall we acquire that the enumeration which we form from the whole is complete and entire.

¹ Resemblance.

² Contiguity.

³ Cause and effect.

⁴ For instance, contrast or contrariety is also a connection among ideas; but it may, perhaps, be considered as a mixture of *causation* and *resemblance*. Where two objects are contrary, the one destroys the other: that is, the cause of its annihilation; and the idea of the annihilation of an object implies the idea of its former existence.

SECTION IV.

SCEPTICAL DOUBTS CONCERNING THE OPERATIONS OF THE UNDERSTANDING

PART I.

ALL the objects of human reason or inquiry may naturally be divided into two kinds—to wit, *relations of ideas* and *matters of fact*. Of the first kind are the sciences of geometry, algebra, and arithmetic, and, in short, every affirmation which is either intuitively or demonstratively certain. *That the square of the hypotenuse is equal to the squares of the two sides*, is a proposition which expresses a relation between these figures. *That three times five is equal to the half of thirty* expresses a relation between these numbers. Propositions of this kind are discoverable by the mere operation of thought, without dependence on what is anywhere existent in the universe. Though there never were a circle or triangle in nature, the truths demon-

strated by Euclid would for ever retain their certainty and evidence.

Matters of fact, which are the second objects of human reason, are not ascertained in the same manner; nor is our evidence of their truth, however great, of a like nature with the foregoing. The contrary of every matter of fact is still possible, because it can never imply a contradiction, and is conceived by the mind with the same facility and distinctness as if ever so conformable to reality. *That the sun will not rise to-morrow* is no less intelligible a proposition, and implies no more contradiction, than the affirmation *that it will rise*. We should in vain, therefore, attempt to demonstrate its falsehood. Were it demonstratively false, it would imply a contradiction, and could never be distinctly conceived by the mind.

It may, therefore, be a subject worthy

of curiosity to inquire what is the nature of that evidence which assures us of any real existence and matter of fact beyond the present testimony of our senses or the records of our memory. This part of philosophy, it is observable, has been little cultivated, either by the ancients or moderns; and therefore our doubts and errors in the prosecution of so important an inquiry may be the more excusable while we march through such difficult paths without any guide or direction. They may even prove useful, by exciting curiosity and destroying that implicit faith and security which is the bane of all reasoning and free inquiry. The discovery of defects in the common philosophy, if any such there be, will not, I presume, be a discouragement, but rather an incitement, as is usual, to attempt something more full and satisfactory than has yet been proposed to the public.

All reasonings concerning matter of fact seem to be founded on the relation of *cause and effect*. By means of that relation alone we can go beyond the evidence of our memory and senses. If you were to ask a man why he believes any matter of fact which is absent -- for instance, that his friend is in the country or in France -- he would give you a reason; and this reason would be some other fact, as a letter received from him, or the knowledge of his former resolutions and promises. A man finding a watch or any other machine in a desert island would conclude that there had once been men in that island. All our reasonings concerning fact are of the same nature. And here it is constantly supposed that there is a connection between the present fact and that which is inferred from it. Were there nothing to bind them together, the inference would be entirely precarious. The hearing of an articulate voice and rational discourse in the dark assures us of the presence of some person. Why? Because these are the effects of the human make and fabric, and closely connected with it. If we anatomise all the other reasonings of this nature, we shall find that they are founded on the relation of cause and effect, and that this relation is either near or remote, direct or collateral. Heat and light are collateral effects of fire, and the one effect may justly be inferred from the other.

If we would satisfy ourselves, therefore, concerning the nature of that evidence which assures us of matters of fact, we

must inquire how we arrive at the knowledge of cause and effect.

I shall venture to affirm, as a general proposition which admits of no exception, that the knowledge of this relation is not, in any instance, attained by reasonings *a priori*, but arises entirely from experience, when we find that any particular objects are constantly conjoined with each other. Let an object be presented to a man of ever so strong natural reason and abilities, if that object be entirely new to him he will not be able, by the most accurate examination of its sensible qualities, to discover any of its causes or effects. Adam, though his rational faculties be supposed, at the very first, entirely perfect, could not have inferred from the fluidity and transparency of water that it would suffocate him, or from the light and warmth of fire that it would consume him. No object ever discovers by the qualities which appear to the senses either the causes which produced it or the effects which will arise from it; nor can our reason, unassisted by experience, ever draw any inference concerning real existence and matter of fact.

This proposition, that *causes and effects are discoverable not by reason, but by experience*, will readily be admitted with regard to such objects as we remember to have once been altogether unknown to us, since we must be conscious of the utter inability which we then lay under of foretelling what would arise from them. Present two smooth pieces of marble to a man who has no tincture of natural philosophy; he will never discover that they will adhere together in such a manner as to require great force to separate them in a direct line, while they make so small a resistance to a lateral pressure. Such events as bear little analogy to the common course of nature are also readily confessed to be known only by experience; nor does any man imagine that the explosion of gunpowder or the attraction of a lodestone could ever be discovered by arguments *a priori*. In like manner, when an effect is supposed to depend upon an intricate machinery or secret structure of parts, we make no difficulty in attributing all our knowledge of it to experience. Who will assert that he can give the ultimate reason why milk or bread is proper nourishment for a man, not for a lion or a tiger?

But the same truth may not appear, at first sight, to have the same evidence with

regard to events which have become familiar to us from our first appearance in the world, which bear a close analogy to the whole course of nature, and which are supposed to depend on the simple qualities of objects, without any secret structure of parts. We are apt to imagine that we could discover these effects by the mere operation of our reason without experience. We fancy that, were we brought on a sudden into this world, we could at first have inferred that one billiard-ball would communicate motion to another upon impulse, and that we needed not to have waited for the event in order to pronounce with certainty concerning it. Such is the influence of custom that, where it is strongest, it not only covers our natural ignorance, but even conceals itself, and seems not to take place, merely because it is found in the highest degree.

But to convince us that all the laws of nature, and all the operations of bodies without exception, are known only by experience, the following reflections may perhaps suffice. Were any object presented to us, and were we required to pronounce concerning the effect which will result from it without consulting past observation, after what manner, I beseech you, must the mind proceed in this operation? It must invent or imagine some event, which it ascribes to the object as its effect; and it is plain that this invention must be entirely arbitrary. The mind can never possibly find the effect in the supposed cause by the most accurate scrutiny and examination. For the effect is totally different from the cause, and, consequently, can never be discovered in it. Motion in the second billiard-ball is a quite distinct event from motion in the first; nor is there anything in the one to suggest the smallest hint of the other. A stone or piece of metal raised into the air and left without any support immediately falls. But, to consider the matter *a priori*, is there anything we discover in this situation which can beget the idea of a downward rather than an upward, or any other motion, in the stone or metal?

And as the first imagination or invention of a particular effect in all natural operations is arbitrary where we consult not experience, so must we also esteem the supposed tie or connection between the cause and effect, which binds them together and renders it impossible that any other effect could result from the

operation of that cause. When I see, for instance, a billiard-ball moving in a straight line towards another, even suppose motion in the second ball should by accident be suggested to me as the result of their contact or impulse, may I not conceive that a hundred different events might as well follow from that cause? May not both these balls remain at absolute rest? May not the first ball return in a straight line, or leap off from the second in any line or direction? All these suppositions are consistent and conceivable. Why, then, should we give the preference to one, which is no more consistent or conceivable than the rest? All our reasonings *a priori* will never be able to show us any foundation for this preference.

In a word, then, every effect is a distinct event from its cause. It could not, therefore, be discovered in the cause, and the first invention or conception of it, *a priori*, must be entirely arbitrary. And, even after it is suggested, the conjunction of it with the cause must appear equally arbitrary, since there are always many other effects which to reason must seem fully as consistent and natural. In vain, therefore, should we pretend to determine any single event, or infer any cause or effect, without the assistance of observation and experience.

Hence, we may discover the reason why no philosopher who is rational and modest has ever pretended to assign the ultimate cause of any natural operation, or to show distinctly the action of that power which produces any single effect in the universe. It is confessed that the utmost effort of human reason is to reduce the principles productive of natural phenomena to a greater simplicity, and to resolve the many particular effects into a few general causes by means of reasonings from analogy, experience, and observation. But as to the causes of these general causes we should in vain attempt their discovery, nor shall we ever be able to satisfy ourselves by any particular explication of them. These ultimate springs and principles are totally shut up from human curiosity and inquiry. Elasticity, gravity, cohesion of parts, communication of motion by impulse—these are probably the ultimate causes and principles which we ever discover in nature; and we may esteem ourselves sufficiently happy if, by accurate inquiry and reasoning, we can trace up the particular phenomena

to, or near to, these general principles. The most perfect philosophy of the natural kind only staves off our ignorance a little longer, as, perhaps, the most perfect philosophy of the moral or metaphysical kind serves only to discover larger portions of it. Thus, the observation of human blindness and weakness is the result of all philosophy, and meets us at every turn, in spite of our endeavours to elude or avoid it.

Nor is geometry, when taken into the assistance of natural philosophy, ever able to remedy this defect, or lead us into the knowledge of ultimate causes, by all that accuracy of reasoning for which it is so justly celebrated. Every part of mixed mathematics proceeds upon the supposition that certain laws are established by nature in her operations; and abstract reasonings are employed either to assist experience in the discovery of these laws or to determine their influence in particular instances, where it depends upon any precise degree of distance and quantity. Thus, it is a law of motion, discovered by experience, that the moment or force of any body in motion is in the compound ratio or proportion of its solid contents and its velocity; and, consequently, that a small force may remove the greatest obstacle or raise the greatest weight if by any contrivance or machinery we can increase the velocity of that force so as to make it an overmatch for its antagonist. Geometry assists us in the application of this law by giving us the just dimensions of all the parts and figures which can enter into any species of machine; but still, the discovery of the law itself is owing merely to experience, and all the abstract reasonings in the world could never lead us one step towards the knowledge of it. When we reason *a priori*, and consider merely any object or cause as it appears to the mind, independent of all observation, it never could suggest to us the notion of any distinct object, such as its effect, much less show us the inseparable and inviolable connection between them. A man must be very sagacious who could discover by reasoning that crystal is the effect of heat, and ice of cold, without being previously acquainted with the operation of these qualities.

PART II.

But we have not yet attained any

tolerable satisfaction with regard to the question first proposed. Each solution still gives rise to a new question as difficult as the foregoing, and leads us on to further inquiries. When it is asked, *What is the nature of all our reasonings concerning matter of fact?* the proper answer seems to be that they are founded on the relation of cause and effect. When again it is asked, *What is the foundation of all our reasonings and conclusions concerning that relation?* it may be replied in one word, Experience. But if we still carry on our sifting humour, and ask, *What is the foundation of all conclusions from experience?* this implies a new question, which may be of more difficult solution and explication. Philosophers that give themselves airs of superior wisdom and sufficiency have a hard task when they encounter persons of inquisitive disposition, who push them from every corner to which they retreat, and who are sure at last to bring them to some dangerous dilemma. The best expedient to prevent this confusion is to be modest in our pretensions, and even to discover the difficulty ourselves before it is objected to us. By this means we may make a kind of merit of our very ignorance.

I shall content myself in this section with an easy task, and shall pretend only to give a negative answer to the question here proposed. I say then that, even after we have experience of the operations of cause and effect, our conclusions from that experience are *not* founded on reasoning, or any process of the understanding. This answer we must endeavour both to explain and to defend.

It must certainly be allowed that nature has kept us at a great distance from all her secrets, and has afforded us only the knowledge of a few superficial qualities of objects, while she conceals from us those powers and principles on which the influence of those objects entirely depends. Our senses inform us of the colour, weight, and consistence of bread; but neither sense nor reason can ever inform us of those qualities which fit it for the nourishment and support of a human body. Sight or feeling conveys an idea of the actual motion of bodies; but as to that wonderful force or power which would carry on a moving body for ever in a continued change of place, and which bodies never lose but by communicating it to others, of this we cannot form the

most distant conception. But, notwithstanding this ignorance of natural powers¹ and principles, we always presume, when we see like sensible qualities, that they have like secret powers, and expect that effects similar to those which we have experienced will follow from them. If a body of like colour and consistence with that bread, which we have formerly eat, be presented to us, we make no scruple of repeating the experiment, and foresee with certainty like nourishment and support. Now this is a process of the mind or thought, of which I would willingly know the foundation. It is allowed on all hands that there is no known connection between the sensible qualities and the secret powers, and, consequently, that the mind is not led to form such a conclusion concerning their constant and regular conjunction by anything which it knows of their nature. As to past experience, it can be allowed to give *direct* and *certain* information of those precise objects only, and that precise period of time, which fell under its cognisance; but why this experience should be extended to future times, and to other objects which, for aught we know, may be only in appearance similar, this is the main question on which I would insist. The bread which I formerly eat nourished me; that is, a body of such sensible qualities was at that time endued with such secret powers; but does it follow that other bread must also nourish me at another time, and that like sensible qualities must always be attended with like secret powers? The consequence seems nowise necessary. At least, it must be acknowledged that there is here a consequence drawn by the mind; that there is a certain step taken; a process of thought, and an inference which wants to be explained. These two propositions are far from being the same; *I have found that such an object has always been attended with such an effect, and I foresee that other objects, which are in appearance similar, will be attended with similar effects.* I shall allow, if you please, that the one proposition may justly be inferred from the other; I know, in fact, that it always is inferred. But if you insist that the inference is made by a chain of reasoning, I desire you to pro-

duce that reasoning. The connection between these propositions is not intuitive. There is required a medium which may enable the mind to draw such an inference, if, indeed, it be drawn by reasoning and argument. What that medium is, I must confess, passes my comprehension; and it is incumbent on those to produce it who assert that it really exists, and is the origin of all our conclusions concerning matter of fact.

This negative argument must certainly, in process of time, become altogether convincing if many penetrating and able philosophers shall turn their inquiries this way, and no one be ever able to discover any connecting proposition or intermediate step which supports the understanding in this conclusion. But, as the question is yet new, every reader may not trust so far to his own penetration as to conclude, because an argument escapes his inquiry, that therefore it does not really exist. For this reason it may be requisite to venture upon a more difficult task, and, enumerating all the branches of human knowledge, endeavour to show that none of them can afford such an argument.

All reasonings may be divided into two kinds: namely, demonstrative reasoning, or that concerning relations of ideas, and moral reasoning, or that concerning matter of fact and existence. That there are no demonstrative arguments in the case seems evident, since it implies no contradiction that the course of nature may change, and that an object, seemingly like those which we have experienced, may be attended with different or contrary effects. May I not clearly and distinctly conceive that a body falling from the clouds, and which in all other respects resembles snow, has yet the taste of salt, or feeling of fire? Is there any more intelligible proposition than to affirm that all the trees will flourish in December and January and decay in May and June? Now whatever is intelligible, and can be distinctly conceived, implies no contradiction, and can never be proved false by any demonstrative argument or abstract reasoning *a priori*.

If we be, therefore, engaged by arguments to put trust in past experience, and make it the standard of our future judgment, these arguments must be probable only, or such as regard matter of fact and real existence, according to the division above mentioned. But that

¹ The word "power" is here used in a loose and popular sense. The more accurate explication of it would give additional evidence to this argument. See Sect. 7.

there is no argument of this kind must appear if our explication of that species of reasoning be admitted as solid and satisfactory. We have said that all arguments concerning existence are founded on the relation of cause and effect; that our knowledge of that relation is derived entirely from experience; and that all our experimental conclusions proceed upon the supposition that the future will be conformable to the past. To endeavour, therefore, the proof of this last supposition by probable arguments, or arguments regarding existence, must be evidently going in a circle, and taking that for granted which is the very point in question.

In reality, all arguments from experience are founded on the similarity which we discover among natural objects, and by which we are induced to expect effects similar to those which we have found to follow from such objects. And though none but a fool or madman will ever pretend to dispute the authority of experience, or to reject that great guide of human life, it may surely be allowed a philosopher to have so much curiosity at least as to examine the principle of human nature which gives this mighty authority to experience, and makes us draw advantage from that similarity which nature has placed among different objects. From causes which appear *similar* we expect similar effects. This is the sum of all our experimental conclusions. Now it seems evident that, if this conclusion were formed by reason, it would be as perfect at first, and upon one instance, as after ever so long a course of experience. But the case is far otherwise. Nothing so like as eggs; yet no one, on account of this appearing similarity, expects the same taste and relish in all of them. It is only after a long course of uniform experiments in any kind that we attain a firm reliance and security with regard to a particular event. Now, where is that process of reasoning which from one instance draws a conclusion so different from that which it infers from a hundred instances that are nowise different from that single one? This question I propose as much for the sake of information as with an intention of raising difficulties. I cannot find, I cannot imagine, any such reasoning. But I keep my mind still open to instruction, if anyone will vouchsafe to bestow it on me.

Should it be said that from a number of uniform experiments we *infer* a con-

nection between the sensible qualities and the secret powers; this, I must confess, seems the same difficulty, couched in different terms. The question still recurs, on what process of argument this *inference* is founded? Where is the medium, the interposing ideas, which join propositions so very wide of each other? It is confessed that the colour, consistence, and other sensible qualities of bread appear not of themselves to have any connection with the secret powers of nourishment and support. For otherwise we could infer these secret powers from the first appearance of these sensible qualities, without the aid of experience, contrary to the sentiment of all philosophers, and contrary to plain matter of fact. Here, then, is our natural state of ignorance with regard to the powers and influence of all objects. How is this remedied by experience? It only shows us a number of uniform effects resulting from certain objects, and teaches us that those particular objects at that particular time were endowed with such powers and forces. When a new object endowed with similar sensible qualities is produced, we expect similar powers and forces, and look for a like effect. From a body of like colour and consistence with bread we expect like nourishment and support. But this surely is a step or progress of the mind which wants to be explained. When a man says, *I have found in all past instances such sensible qualities conjoined with such secret powers*; and when he says, *Similar sensible qualities will always be conjoined with similar secret powers*, he is not guilty of a tautology, nor are these propositions in any respect the same. You say that the one proposition is an inference from the other. But you must confess that the inference is not intuitive; neither is it demonstrative. Of what nature is it, then? To say it is experimental is begging the question. For all inferences from experience suppose as their foundation that the future will resemble the past, and that similar powers will be conjoined with similar sensible qualities. If there be any suspicion that the course of nature may change, and that the past may be no rule for the future, all experience becomes useless, and can give rise to no inference or conclusion. It is impossible, therefore, that any arguments from experience can prove this resemblance of the past to the future, since all these arguments

are founded on the supposition of that resemblance. Let the course of things be allowed hitherto ever so regular, that alone, without some new argument or inference, proves not that for the future it will continue so. In vain do you pretend to have learned the nature of bodies from your past experience. Their secret nature, and consequently all their effects and influence, may change without any change in their sensible qualities. This happens sometimes, and with regard to some objects. Why may it happen always, and with regard to all objects? What logic, what process of argument, secures you against this supposition? My practice, you say, refutes my doubts. But you mistake the purport of my question. As an agent, I am quite satisfied in the point; but as a philosopher, who has some share of curiosity, I will not say scepticism, I want to learn the foundation of this inference. No reading, no inquiry, has yet been able to remove my difficulty, or give me satisfaction in a matter of such importance. Can I do better than propose the difficulty to the public, even though, perhaps, I have small hopes of obtaining a solution? We shall, at least, by this means be sensible of our ignorance, if we do not augment our knowledge.

I must confess that a man is guilty of unpardonable arrogance who concludes, because an argument has escaped his own investigation, that therefore it does not really exist. I must also confess that, though all the learned for several ages should have employed themselves in fruitless search upon any subject, it may still, perhaps, be rash to conclude positively that the subject must, therefore, pass all human comprehension. Even though we examine all the sources of our knowledge, and conclude them unfit for

such a subject, there may still remain a suspicion that the enumeration is not complete or the examination not accurate. But with regard to the present subject, there are some considerations which seem to remove all this accusation of arrogance or suspicion of mistake.

It is certain that the most ignorant and stupid peasants—nay infants, nay even brute beasts—improve by experience, and learn the qualities of natural objects by observing the effects which result from them. When a child has felt the sensation of pain from touching the flame of a candle, he will be careful not to put his hand near any candle, but will expect a similar effect from a cause which is similar in its sensible qualities and appearance. If you assert, therefore, that the understanding of the child is led into this conclusion by any process of argument or ratiocination, I may justly require you to produce that argument; nor have you any pretence to refuse so equitable a demand. You cannot say that the argument is abstruse, and may possibly escape your inquiry, since you confess that it is obvious to the capacity of a mere infant. If you hesitate, therefore, a moment, or if, after reflection, you produce any intricate or profound argument, you, in a manner, give up the question, and confess that it is not reasoning which engages us to suppose the past resembling the future, and to expect similar effects from causes which are, to appearance, similar. This is the proposition which I intended to enforce in the present section. If I be right, I pretend not to have made any mighty discovery. And if I be wrong, I must acknowledge myself to be, indeed, a very backward scholar, since I cannot now discover an argument which, it seems, was perfectly familiar to me long before I was out of my cradle.

SECTION V.

SCPTICAL SOLUTION OF THESE DOUBTS

PART I

THE passion for philosophy, like that for religion, seems liable to this inconvenience—that, though it aims at the correction of our manners and extirpation of our vices, it may only serve, by imprudent management, to foster a predominant inclination, and push the mind with more determined resolution towards that side which already *bias* too much by the bias and propensity of the natural temper. It is certain that while we aspire to the magnanimous firmness of the philosophic sage and endeavour to confine our pleasures also either within our own minds, we may at last render our philosophy, like that of Epictetus and other Stoics, only a more refined system of selfishness and reason ourselves out of all virtue as well as social enjoyment. While we study with attention the vanity of human life and turn all our thoughts towards the empty and transitory nature of riches and honours, we are perhaps, all the while flattering our natural indolence, which, hating the bustle of the world and drudgery of business, seeks a pretence of reason to give itself a full and uncontrolled indulgence. There is however, one species of philosophy which seems little liable to this inconvenience, and that because it strikes in with no disorderly passion of the human mind, nor can mingle itself with any natural affection or propensity, and that is the academic or sceptical philosophy. The academics always talk of doubt and suspense of judgment of danger in hasty determinations of confining to very narrow bounds the inquiries of the understanding, and of renouncing all speculations which lie not within the limits of common life and practice. Nothing, therefore, can be more contrary than such a philosophy to the supine indolence of the mind, its rash arrogance, its lofty pretensions, and its superstitious credulity. Every passion is mollified by it, except the love of truth, and that passion never

is nor can be carried to too high a degree. It is surprising, therefore, that this philosophy, which in almost every instance must be harmless and innocent, should be the subject of so much groundless reproach and obloquy. But, perhaps, the very circumstance which renders it so innocent is what chiefly exposes it to the public hatred and resentment. By flattering no irregular passion, it gains few partisans. By opposing so many vices and follies, it raises to itself abundance of enemies, who stigmatise it as libertine, profane, and ridiculous.

Nor need we fear that this philosophy, while it endeavours to limit our inquiries to common life, should ever undermine the reasonings of common life and carry its doubts so far as to destroy all action as well as speculation. Nature will always maintain her rights and prevail in the end over any abstract reasoning whatsoever. Though we should conclude, for instance, as in the foregoing section, that in all reasonings from experience there is a step taken by the mind which is not supported by any argument or process of the understanding, there is no danger that these reasonings, on which almost all knowledge depends, will ever be affected by such a discovery. If the mind be not engaged by argument to make this step, it must be induced by some other principle of equal weight and authority, and that principle will preserve its influence as long as human nature remains the same. What that principle is may well be worth the pains of inquiry.

Suppose a person though endowed with the strongest faculties of reason and reflection to be brought on a sudden into this world, he would, indeed, immediately observe a continual succession of objects, and one event following another; but he would not be able to discover anything further. He would not, at first, by any reasoning, be able to reach the idea of cause and effect, since the particular powers by which all natural operations

are performed never appear to the senses; nor is it reasonable to conclude, merely because one event in one instance precedes another, that therefore the one is the cause, the other the effect. Their conjunction may be arbitrary and casual. There may be no reason to infer the existence of one from the appearance of the other. And, in a word, such a person, without more experience, could never employ his conjecture or reasoning concerning any matter of fact, or be assured of anything beyond what was immediately present to his memory and senses.

Suppose, again, that he has acquired more experience, and has lived so long in the world as to have observed familiar objects or events to be constantly conjoined together, what is the consequence of this experience? He immediately infers the existence of one object from the appearance of the other. Yet he has not, by all his experience, acquired any idea or knowledge of the secret power by which the one object produces the other; nor is it by any process of reasoning he is engaged to draw this inference. But still he finds himself determined to draw it. And though he should be convinced that his understanding has no part in the operation, he would nevertheless continue in the same course of thinking. There is some other principle which determines him to form such a conclusion.

This principle is Custom, or Habit. For, wherever the repetition of any particular act or operation produces a propensity to renew the same act or operation without being impelled by any reasoning or process of the understanding, we always say that this propensity is the effect of *custom*. By employing that word we pretend not to have given the ultimate reason of such a propensity. We only point out a principle of human nature which is universally acknowledged, and which is well known by its effects. Perhaps we can push our inquiries no farther, or pretend to give the cause of this cause, but must rest contented with it as the ultimate principle which we can assign of all our conclusions from experience. It is sufficient satisfaction that we can go so far, without repining at the narrowness of our faculties because they will carry us no farther. And it is certain we here advance a very intelligible proposition at least, if not a true one, when we assert that after the constant conjunction of two objects—heat

and flame, for instance, weight and solidity—we are determined by custom alone to expect the one from the appearance of the other. This hypothesis seems even the only one which explains the difficulty—why we draw from a thousand instances an inference which we are not able to draw from one instance that is in no respect different from them. Reason is incapable of any such variation. The conclusions which it draws from considering one circle are the same which it would form upon surveying all the circles in the universe. But no man, having seen only one body move after being impelled by another, could infer that every other body will move after a like impulse. All inferences from experience, therefore, are effects of custom, not of reasoning.*

* Nothing is more useful than for writers, even on moral, political, or physical subjects, to distinguish between *reason* and *experience*, and to suppose that these species of argumentation are entirely different from each other. The former are taken for the mere result of our intellectual faculties, which, by considering *a priori* the nature of things, and examining the effects that must follow from the operation, establish particular principles of science and philosophy. The latter are supposed to be derived entirely from *sense* and observation, by which we learn what has actually resulted from the operation of particular objects, and are thence able to infer what will for the future result from them. Thus, for instance, the limitations and restraints of civil government and a legal constitution may be deduced either from *reason*, which, reflecting on the great frailty and corruption of human nature, teaches that no man can safely be trusted with unlimited authority; or from *experience* and *history*, which inform us of the enormous abuses that ambition, in every age and country, has been found to make of so imprudent a confidence. The same distinction between *reason* and *experience* is maintained in all our deliberations concerning the conduct of life; while the experienced statesman, general, physician, or merchant is trusted and followed, and the unpractised novice, with whatever natural talents endowed, neglected and despised. Though it be allowed that reason may form very plausible conjectures with regard to the consequences of such a particular conduct in such particular circumstances, it is still supposed imperfect without the assistance of experience, which is alone able to give stability and certainty to the maxims derived from study and reflection. But, notwithstanding that this distinction be thus universally received both in the active and speculative sciences of life, I shall not scruple to pronounce that it is, at bottom, erroneous—at least superficial. If we examine those arguments which in any of the sciences above mentioned are supposed to be the mere effects of reasoning and reflection, they will be found to terminate at last in some general principle or conclusion for which we can assign no reason but observation and experience. The only difference between them and those maxims which are vulgarly esteemed the result of pure experience is that the former cannot be established without some process of thought and some reflection on what we have observed, in order to distinguish its circumstances and trace its consequences, whereas in the latter the experienced event is exactly and fully familiar to that which we infer as the result of any particular situation. The history of a Tiberius or a Nero makes us dread a like tyranny were our monarchs freed from the restraints of laws and senates. But the observation of any fraud or cruelty in private life is sufficient, with the aid of a little

Custom, then, is the great guide of human life. It is that principle alone which renders our experience useful to us and makes us expect for the future a similar train of events with those which have appeared in the past. Without the influence of custom we should be entirely ignorant of every matter of fact beyond what is immediately present to the memory and senses. We should never know how to adjust means to ends, or to employ our natural powers in the production of any effect. There would be an end at once of all action, as well as of the chief part of speculation.

But here it may be proper to remark that, though our conclusions from experience carry us beyond our memory and senses and assure us of matters of fact which happened in the most distant places and most remote ages, yet some fact must always be present to the senses or memory from which we may first proceed in drawing these conclusions. A man who should find in a desert country the remains of pompous buildings would conclude that the country had in ancient times been cultivated by civilised inhabitants; but did nothing of this nature occur to him he could never form such an inference. We learn the events of former ages from history; but then we must peruse the volumes in which this instruction is contained, and thence carry up our inferences from one testimony to another, till we arrive at the eye-witnesses and spectators of these distant events. In a word, if we proceed not upon some fact present to the memory or senses, our

reasonings would be merely hypothetical; and, however the particular links might be connected with each other, the whole chain of inferences would have nothing to support it, nor could we ever by its means arrive at the knowledge of any real existence. If I ask why you believe any particular matter of fact which you relate, you must tell me some reason, and this reason will be some other fact connected with it. But as you cannot proceed after this manner *in infinitum*, you must at last terminate in some fact which is present to your memory or senses, or must allow that your belief is entirely without foundation.

What, then, is the conclusion of the whole matter? A simple one, though, it must be confessed, pretty remote from the common theories of philosophy. All belief of matter of fact or real existence is derived merely from some object present to the memory or senses, and a customary conjunction between that and some other object. Or, in other words, having found, in many instances, that any two kinds of objects—flame and heat, snow and cold—have always been conjoined together; if flame or snow be presented anew to the senses the mind is carried by custom to expect heat or cold, and to *believe* that such a quality does exist, and will discover itself upon a nearer approach. This belief is the necessary result of placing the mind in such circumstances. It is an operation of the soul when we are so situated as unavoidable as to feel the passion of love when we receive benefits, or hatred when we meet with injuries. All these operations are a species of natural instincts, which no reasoning or process of the thought and understanding is able either to produce or to prevent.

At this point it would be very allowable for us to stop our philosophical researches. In most questions we can never make a single step farther; and in all questions we must terminate here at last after our most restless and curious inquiries. But still our curiosity will be pardonable, perhaps commendable, if it carry us on to still farther researches and make us examine more accurately the nature of this *belief* and of the *customary conjunction* whence it is derived. By this means we may meet with some explications and analogies that will give satisfaction—at least to such as love the abstract sciences, and can be entertained with speculations

thought, to give us the same apprehension, while it serves as an instance of the general corruption of human nature, and shows us the danger which we must incur by reposing an entire confidence in mankind. In both cases it is experience which is ultimately the foundation of our inference and conclusion. There is no man so young and unexperienced as not to have formed from observation many general and just maxims concerning human affairs and the conduct of life; but it must be confessed that when a man comes to put these in practice he will be extremely liable to error till time and farther experience both enlarge these maxims and teach him their proper use and application. In every situation or incident there are many particular and seemingly minute circumstances which the man of greatest talent is at first apt to overlook, though on them the justness of his conclusions, and consequently the prudence of his conduct, entirely depend; not to mention that to a young beginner the general observations and maxims occur not always on the proper occasions, nor can be immediately applied with due altness and distinction. The truth is, an unexperienced reasoner could be no reasoner at all were he absolutely unexperienced; and when we assign that character to anyone we mean it only in a comparative sense, and suppose him possessed of experience in a smaller and more imperfect degree.

which, however accurate, may still retain a degree of doubt and uncertainty. As to readers of a different taste, the remaining part of this section is not calculated for them; and the following inquiries may well be understood, though it be neglected.

PART II.

Nothing is more free than the imagination of man; and, though it cannot exceed that original stock of ideas furnished by the internal and external senses, it has unlimited power of mixing, compounding, separating, and dividing these ideas in all the varieties of fiction and vision. It can feign a train of events with all the appearance of reality, ascribe to them a particular time and place, conceive them as existent, and paint them out to itself with every circumstance that belongs to any historical fact which it believes with the greatest certainty. Wherein, therefore, consists the difference between such a fiction and belief? It lies not merely in any peculiar idea which is annexed to such a conception as commands our assent, and which is wanting to every known fiction. For, as the mind has authority over all its ideas, it could voluntarily annex this particular idea to any fiction, and consequently be able to believe whatever it pleases, contrary to what we find by daily experience. We can, in our conception, join the head of a man to the body of a horse, but it is not in our power to believe that such an animal has ever really existed.

It follows, therefore, that the difference between *fiction* and *belief* lies in some sentiment or feeling which is annexed to the latter, not to the former, and which depends not on the will, nor can be commanded at pleasure. It must be excited by nature, like all other sentiments, and must arise from the particular situation in which the mind is placed at any particular juncture. Whenever any object is presented to the memory or senses, it immediately, by the force of custom, carries the imagination to conceive that object which is usually enjoined to it; and this conception is at ended with a feeling or sentiment different from the loose reveries of the fancy. In this consists the whole nature of belief. For, as there is no matter of fact which we believe so firmly that we cannot conceive the contrary, there would be no difference between the conception assented to and

that which is rejected were it not for some sentiment which distinguishes the one from the other. If I see a billiard-ball moving towards another on a smooth table I can easily conceive it to stop upon contact. This conception implies no contradiction, but still it feels very different from that conception by which I represent to myself the impulse and the communication of motion from one ball to another.

Were we to attempt a *definition* of this sentiment, we should perhaps find it a very difficult, if not an impossible, task, in the same manner as if we should endeavour to define the feeling of cold or passion of anger to a creature who never had any experience of these sentiments. Belief is the true and proper name of this feeling, and no one is ever at a loss to know the meaning of that term, because every man is every moment conscious of the sentiment represented by it. It may not, however, be improper to attempt a *description* of this sentiment; in hopes we may, by that means, arrive at some analogies which may afford a more perfect explication of it. I say, then, that belief is nothing but a more vivid, lively, forcible, firm, steady conception of an object than what the imagination alone is ever able to attain. This variety of terms, which may seem so unphilosophical, is intended only to express that act of the mind which renders realities, or what are taken for such, more present to us than fictions, causes them to weigh more in the thought, and gives them a superior influence on the passions and imagination. Provided we agree about the thing, it is needless to dispute about the terms. The imagination has the command over all its ideas, and can join and mix and vary them in all the ways possible. It may conceive fictitious objects with all the circumstances of place and time. It may set them, in a manner, before our eyes in their true colours just as they might have existed. But as it is impossible that this faculty of imagination can of itself reach belief, it is evident that belief consists not in the peculiar nature or order of ideas, but in the *manner* of their conception and in their *feeling* to the mind. I confess that it is impossible perfectly to explain this feeling or manner of conception. We may make use of words which express something near it. But its true and proper name, as we observed before, is *belief*, which is a term that everyone

sufficiently understands in common life. And in philosophy we can go no farther than assert that *belief* is something felt by the mind which distinguishes the ideas of the judgment from the fictions of the imagination. It gives them more weight and influence; makes them appear of greater importance; enforces them in the mind; and renders them the governing principle of our actions. I hear at present, for instance, a person's voice with whom I am acquainted, and the sound comes as from the next room. This impression of my senses immediately conveys my thought to the person, together with all the surrounding objects. I paint them out to myself as existing at present, with the same qualities and relations of which I formerly knew them possessed. These ideas take faster hold of my mind than ideas of an enchanted castle. They are very different to the feeling, and have a much greater influence of every kind, either to give pleasure or pain, joy or sorrow.

Let us, then, take in the whole compass of this doctrine, and allow that the sentiment of belief is nothing but a conception more intense and steady than what attends the mere fictions of the imagination, and that this *manner* of conception arises from a customary conjunction of the object with something present to the memory or senses. I believe that it will not be difficult, upon these suppositions, to find other operations of the mind analogous to it, and to trace up these phenomena to principles still more general.

We have already observed that nature has established connections among particular ideas, and that no sooner one idea occurs to our thoughts than it introduces its correlative, and carries our attention towards it by a gentle and insensible movement. These principles of connection or association we have reduced to three—namely, *resemblance*, *contiguity*, and *causation*, which are the only bonds that unite our thoughts together and beget that regular train of reflection or discourse which, in a greater or less degree, takes place among mankind. Now, here arises a question on which the solution of the present difficulty will depend. Does it happen in all these relations that when one of the objects is presented to the senses or memory the mind is not only carried to the conception of the correlative, but reaches a steadier and stronger conception of it than what

otherwise it would have been able to attain? This seems to be the case with that belief which arises from the relation of cause and effect. And if the case be the same with the other relations or principles of associations, this may be established as a general law which takes place in all the operations of the mind.

We may therefore observe, as the first experiment to our present purpose, that upon the appearance of the picture of an absent friend, our idea of him is evidently enlivened by the *resemblance*, and that every passion which that idea occasions, whether of joy or sorrow, acquires new force and vigour. In producing this effect, there concur both a relation and a present impression. Where the picture bears him no resemblance—at least was not intended for him—it never so much as conveys our thought to him. And where it is absent as well as the person, though the mind may pass from the thought of the one to that of the other, it feels its idea to be rather weakened than enlivened by that transition. We take a pleasure in viewing the picture of a friend when it is set before us, but when it is removed rather choose to consider him directly than by reflection in an image which is equally distant and obscure.

The ceremonies of the Roman Catholic religion may be considered as instances of the same nature. The devotees of that superstition usually plead, in excuse for the mummeries with which they were upbraided, that they feel the good effect of those external motions and postures and actions in enlivening their devotion and quickening their fervour, which otherwise would decay if directed entirely to distant and immaterial objects. We shadow out the objects of our faith, say they, in sensible types and images, and render them more present to us by the immediate presence of these types than it is possible for us to do merely by an intellectual view and contemplation. Sensible objects have always a greater influence on the fancy than any other, and this influence they readily convey to those ideas to which they are related, and which they resemble. I shall only infer from these practices and this reasoning that the effect of resemblance in enlivening the ideas is very common; and as in every case a resemblance and a present impression must concur, we are abundantly supplied with experiments to prove the reality of the foregoing principle.

We may add force to these experiments by others of a different kind in considering the effects of *contiguity* as well as of *resemblance*. It is certain that distance diminishes the force of every idea, and that, upon our approach to any object, though it does not discover itself to our senses, it operates upon the mind with an influence which imitates an immediate impression. The thinking on any object readily transports the mind to what is contiguous; but it is only the actual presence of an object that transports it with a superior vivacity. When I am a few miles from home, whatever relates to it touches me more nearly than when I am two hundred leagues distant, though even at that distance the reflecting on anything in the neighbourhood of my friends or family naturally produces an idea of them. But as in this latter case both the objects of the mind are ideas, notwithstanding there is an easy transition between them, that transition alone is not able to give a superior vivacity to any of the ideas, for want of some immediate impression.¹

No one can doubt but causation has the same influence as the other two relations of resemblance and contiguity. Superstitious people are fond of the relics of saints and holy men, for the same reason that they seek after types or images—in order to enliven their devotion and give them a more intimate and strong conception of those exemplary lives which they desire to imitate. Now, it is evident that one of the best relics which a devotee could procure would be the handiwork of a saint; and if his clothes and furniture are ever to be considered in this light, it is because they were once at his disposal and were moved and affected by him, in which respect they are to be considered as imperfect effects, and as connected with him by a shorter chain of consequences

than any of those by which we learn the reality of his existence.

Suppose that the son of a friend who had been long dead or absent were presented to us, it is evident that this object would instantly revive its correlative idea, and recall to our thoughts all past intimacies and familiarities in more lively colours than they would otherwise have appeared to us. This is another phenomenon which seems to prove the principle above mentioned.

We may observe that in these phenomena the belief of the correlative object is always presupposed, without which the relation could have no effect. The influence of the picture supposes that we *believe* our friend to have once existed. Contiguity to home can never excite our ideas of home unless we *believe* that it really exists. Now, I assert that this belief, where it reaches beyond the memory or senses, is of a similar nature, and arises from similar causes, with the transition of thought and vivacity of conception here explained. When I throw a piece of dry wood into a fire my mind is immediately carried to conceive that it augments, not extinguishes, the flame. This transition of thought from the cause to the effect proceeds not from reason; it derives its origin altogether from custom and experience. And as it first begins from an object present to the senses, it renders the idea or conception of flame more strong and lively than any loose, floating reverie of the imagination. That idea arises immediately. The thought moves instantly towards it, and conveys to it all that force of conception which is derived from the impression present to the senses. When a sword is levelled at my breast, does not the idea of wound and pain strike me more strongly than when a glass of wine is presented to me, even though by accident this idea should occur after the appearance of the latter object? But what is there in this whole matter to cause such a strong conception except only a present object and a customary transition to the idea of another object, which we have been accustomed to conjoin with the former? This is the whole operation of the mind in all our conclusions concerning matter of fact and existence; and it is a satisfaction to find some analogies by which it may be explained. The transition from a present object does in all cases give strength and solidity to the related idea.

¹ "Naturae nobis, inquit, datum dicam, an errore quoddam ut, cum ea loca videmus, in quibus memoria dignos viros accepimus multum esse versatos, magis moveamur, quam siquando eorum ipsorum aut facta audiamus aut scriptum aliquod legamus? Velut ego nunc moveor. Venit enim mihi Plato in mentem, quem accepimus primum hic disputare solitum: cuius etiam illi hortuli propinqui non memoriam solum mihi afferunt, sed ipsum videntur in conspectu meo hic ponere. Hic Speusippus, hic Xenocrates, hic eius auditor Polemo; cuius ipsa illa sessio fuit, quam videmus. Equidem etiam curiam nostram, Hostilium dico, non hanc novam, quae mihi minor esse videtur postquam est maior, solebam intuenti, Scipionem, Catonem, Laelium; nostrum vero in primis avum cogitare. Tanta vis admonitionis est in locis; ut non sine causa ex his memoriae deducta sit disciplina."—*Cicero De Finibus*, Lib. v.

Here, then, is a kind of pre-established harmony between the course of nature and the succession of our ideas; and, though the powers and forces by which the former is governed be wholly unknown to us, yet our thoughts and conceptions have still, we find, gone on in the same train with the other works of nature. Custom is that principle by which this correspondence has been effected, so necessary to the subsistence of our species and the regulation of our conduct in every circumstance and occurrence of human life. Had not the presence of an object instantly excited the idea of those objects commonly conjoined with it, all our knowledge must have been limited to the narrow sphere of our memory and senses, and we should never have been able to adjust means to ends, or employ our natural powers either to the producing of good or avoiding of evil. Those who delight in the discovery and contemplation of *final causes* have here ample subject to employ their wonder and admiration.

I shall add, for a further confirmation of the foregoing theory, that as this operation of the mind, by which we infer

like effects from like causes and *vice versa*, is so essential to the subsistence of all human creatures, it is not probable that it could be trusted to the fallacious deductions of our reason, which is slow in its operations; appears not in any degree during the first years of infancy; and at best is, in every age and period of human life, extremely liable to error and mistake. It is more conformable to the ordinary wisdom of nature to secure so necessary an act of the mind by some instinct or mechanical tendency, which may be infallible in its operations, may discover itself at the first appearance of life and thought, and may be independent of all the laboured deductions of the understanding. As nature has taught us the use of our limbs without giving us the knowledge of the muscles and nerves by which they are actuated, so has she implanted in us an instinct which carries forward the thought in a correspondent course to that which she has established among external objects, though we are ignorant of those powers and forces on which this regular course and succession of objects totally depends.

SECTION VI.

OF PROBABILITY *

THOUGH there be no such thing as *chance* in the world, our ignorance of the real cause of any event has the same influence on the understanding, and begets a like species of belief or opinion.

There is certainly a probability which arises from a superiority of chances on any side; and according as this superiority increases, and surpasses the opposite chances, the probability receives a proportionable increase, and begets still a

higher degree of belief or assent to that side in which we discover the superiority. If a die were marked with one figure or number of spots on four sides, and with another figure or number of spots on the two remaining sides, it would be more probable that the former would turn up than the latter; though, if it had a thousand sides marked in the same manner, and only one side different, the probability would be much higher, and our

* Mr. Locke divides all arguments into demonstrative and probable. In this view, we must say that it is only probable all men must die, or that the sun will rise to-morrow. But to conform our language more to common use, we ought to divide arguments into *demonstrations*, *proofs*, and *probabilities*; by *proofs* meaning such arguments from experience as leave no room for doubt or opposition.

belief or expectation of the event more steady and secure. This process of the thought or reasoning may seem trivial and obvious; but to those who consider it more narrowly it may, perhaps, afford matter for curious speculation.

It seems evident that when the mind looks forward to discover the event, which may result from the throw of such a die, it considers the turning up of each particular side as alike probable; and this is the very nature of chance—to render all the particular events comprehended in it entirely equal. But finding a greater number of sides concur in the one event than in the other, the mind is carried more frequently to that event, and meets it oftener, in revolving the various possibilities or chances on which the ultimate result depends. This concurrence of several views in one particular event begets immediately, by an inexplicable contrivance of nature, the sentiment of belief, and gives that event the advantage over its antagonist which is supported by a smaller number of views and recurs less frequently to the mind. If we allow that belief is nothing but a firmer and stronger conception of an object than what attends the mere fictions of the imagination, this operation may perhaps in some measure be accounted for. The concurrence of these several views or glimpses imprints the idea more strongly on the imagination; gives it superior force and vigour; renders its influence on the passions and affections more sensible; and, in a word, begets that reliance or security which constitutes the nature of belief and opinion.

The case is the same with the probability of causes as with that of chance. There are some causes which are entirely uniform and constant in producing a particular effect, and no instance has ever yet been found of any failure or irregularity in their operation. Fire has always burned, and water suffocated every human creature. The production of motion by impulse and gravity is an universal law, which has hitherto admitted of no exception. But there are other causes which have been found more irregular and uncertain; nor has rhubarb always proved a purge, or opium a soporific, to everyone who has taken these medicines. It is true, when any cause fails of producing its usual effect, philosophers ascribe this not to any irregularity in nature, but suppose that some secret

causes in the particular structure of parts have prevented the operation. Our reasonings, however, and conclusions concerning the event are the same as if this principle had no place. Being determined by custom to transfer the past to the future, in all our inferences where the past has been entirely regular and uniform we expect the event with the greatest assurance, and leave no room for any contrary supposition. But where different effects have been found to follow from causes which are to *appearance* exactly similar, all these various effects must occur to the mind in transferring the past to the future, and enter into our consideration when we determine the probability of the event. Though we give the preference to that which has been found most usual, and believe that this effect will exist, we must not overlook the other effects, but must assign to each of them a particular weight and authority in proportion as we have found it to be more or less frequent. It is more probable, in almost every country in Europe, that there will be frost some time in January than that the weather will continue open throughout the whole month, though this probability varies according to the different climates, and approaches to a certainty in the more northern kingdoms. Here then it seems evident that when we transfer the past to the future, in order to determine the effect which will result from any cause, we transfer all the different events in the same proportion as they have appeared in the past, and conceive one to have existed a hundred times, for instance, another ten times, and another once. As a great number of views do here concur in one event, they fortify and confirm it to the imagination, beget that sentiment which we call *belief*, and give its object the preference above the contrary event, which is not supported by an equal number of experiments, and recurs not so frequently to the thought in transferring the past to the future. Let anyone try to account for this operation of the mind upon any of the received systems of philosophy, and he will be sensible of the difficulty. For my part, I shall think it sufficient if the present hints excite the curiosity of philosophers, and make them sensible how defective all common theories are in treating of such curious and such sublime subjects.

SECTION VII.

OF THE IDEA OF NECESSARY CONNECTION

PART I.

THE great advantage of the mathematical sciences above the moral consists in this, that the ideas of the former, being sensible, are always clear and determinate, the smallest distinction between them is immediately perceptible, and the same terms are still expressive of the same ideas, without ambiguity or variation. An oval is never mistaken for a circle, nor an hyperbola for an ellipsis. The isosceles and scalenum are distinguished by boundaries more exact than vice and virtue, right and wrong. If any term be defined in geometry, the mind readily of itself substitutes on all occasions the definition for the term defined. Or even when no definition is employed, the object itself may be presented to the senses, and by that means be steadily and clearly apprehended. But the finer sentiments of the mind, the operations of the understanding, the various agitations of the passions, though really in themselves distinct, easily escape us, when surveyed by reflection; nor is it in our power to recall the original object as often as we have occasion to contemplate it. Ambiguity, by this means, is gradually introduced into our reasonings; similar objects are readily taken to be the same, and the conclusion becomes at last very wide of the premises.

One may safely, however, affirm that, if we consider these sciences in a proper light, their advantages and disadvantages nearly compensate each other, and reduce both of them to a state of equality. If the mind, with greater facility, retains the ideas of geometry clear and determinate, it must carry on a much longer and more intricate chain of reasoning, and compare ideas much wider of each other, in order to reach the abstruser truths of that science. And if moral ideas are apt, without extreme care, to fall into obscurity and confusion, the inferences are always much shorter in the disquisitions, and the intermediate

steps which lead to the conclusion much fewer than in the sciences which treat of quantity and number. In reality, there is scarcely a proposition in Euclid so simple as not to consist of more parts than are to be found in any moral reasoning which runs not into chimera and conceit. Where we trace the principles of the human mind through a few steps, we may be very well satisfied with our progress, considering how soon nature throws a bar to all our inquiries concerning causes and reduces us to an acknowledgment of our ignorance. The chief obstacle, therefore, to our improvement in the moral or metaphysical sciences is the obscurity of the ideas and ambiguity of the terms. The principal difficulty in the mathematics is the length of inferences and compass of thought requisite to the forming of any conclusion. And, perhaps, our progress in natural philosophy is chiefly retarded by the want of proper experiments and phenomena, which are often discovered by chance, and cannot always be found when requisite even by the most diligent and prudent inquiry. As moral philosophy seems hitherto to have received less improvement than either geometry or physics, we may conclude that, if there be any difference in this respect among these sciences, the difficulties which obstruct the progress of the former require superior care and capacity to be surmounted.

There are no ideas which occur in metaphysics more obscure and uncertain than those of *power, force, energy, or necessary connection*, of which it is every moment necessary for us to treat in all our disquisitions. We shall, therefore, endeavour in this section to fix, if possible, the precise meaning of these terms, and thereby remove some part of that obscurity which is so much complained of in this species of philosophy.

It seems a proposition which will not admit of much dispute, that all our ideas are nothing but copies of our impressions,

or, in other words, that it is impossible for us to *think* of anything which we have not antecedently *felt* either by our external or internal senses. I have endeavoured^{*} to explain and prove this proposition, and have expressed my hopes that, by a proper application of it, men may reach a greater clearness and precision in philosophical reasonings than what they have hitherto been able to attain. Complex ideas may, perhaps, be well known by definition, which is nothing but an enumeration of those parts or simple ideas that compose them. But when we have pushed up definitions to the most simple ideas, and find still some ambiguity and obscurity, what resource are we then possessed of? By what invention can we throw light upon these ideas, and render them altogether precise and determinate to our intellectual view? Produce the impressions or original sentiments from which the ideas are copied. These impressions are all strong and sensible. They admit not of ambiguity. They are not only placed in a full light themselves, but may throw light on their correspondent ideas which lie in obscurity. And by this means we may, perhaps, attain a new microscope or species of optics, by which in the moral sciences the most minute and most simple ideas may be so enlarged as to fall readily under our apprehension, and be equally known with the grossest and most sensible ideas that can be the object of our inquiry.

To be fully acquainted, therefore, with the idea of power or necessary connection, let us examine its impression; and, in order to find the impression with greater certainty, let us search for it in all the sources from which it may possibly be derived.

When we look about us towards external objects, and consider the operation of causes, we are never able in a single instance to discover any power or necessary connection; any quality which binds the effect to the cause, and renders the one an infallible consequence of the other. We only find that the one does actually, in fact, follow the other. The impulse of one billiard-ball is attended with motion in the second. This is the whole that appears to the *outward* senses. The mind feels no sentiment or *inward* impression from this succession of objects. Consequently there is not in any single par-

ticular instance of cause and effect anything which can suggest the idea of power or necessary connection.

From the first appearance of an object, we never can conjecture what effect will result from it. But were the power or energy of any cause discoverable by the mind, we could foresee the effect, even without experience, and might at first pronounce with certainty concerning it by mere dint of thought and reasoning.

In reality, there is no part of matter that does ever by its sensible qualities discover any power or energy, or give us ground to imagine that it could produce anything, or be followed by any other object which we could denominate its effect. Solidity, extension, motion--these qualities are all complete in themselves, and never point out any other event which may result from them. The scenes of the universe are continually shifting, and one object follows another in an uninterrupted succession; but the power or force which actuates the whole machine is entirely concealed from us, and never discovers itself in any of the sensible qualities of body. We know that, in fact, heat is a constant attendant of flame; but what is the connection between them we have no room so much as to conjecture or imagine. It is impossible, therefore, that the idea of power can be derived from the contemplation of bodies in single instances of their operation, because no bodies ever discover any power which can be the original of this idea.[†]

Since, therefore, external objects, as they appear to the senses, give us no idea of power or necessary connection by their operation in particular instances, let us see whether this idea be derived from reflection on the operations of our own minds, and be copied from any internal impression. It may be said that we are every moment conscious of internal power, while we feel that by the simple command of our will we can move the organs of our body or direct the faculties of our mind. An act of volition produces motion in our limbs, or raises a new idea in our imagination. This influence of the

^{*} Mr. Locke, in his chapter "Of Power," says that, finding from experience that there are several new productions in matter, and concluding that there must somewhere be a power capable of producing them, we arrive at last by this reasoning at the idea of power. But no reasoning can ever give us a new, original, simple idea, as this philosopher himself confesses. This, therefore, can never be the origin of that idea.

will we know by consciousness. Hence we acquire the idea of power or energy, and are certain that we ourselves and all other intelligent beings are possessed of power. This idea, then, is an idea of reflection, since it arises from reflecting on the operations of our own mind and on the command which is exercised by will both over the organs of the body and faculties of the soul.

We shall proceed to examine this pretension, and first with regard to the influence of volition over the organs of the body. This influence, we may observe, is a fact which, like all other natural events, can be known only by experience, and can never be foreseen from any apparent energy or power in the cause which connects it with the effect, and renders the one an infallible consequence of the other. The motion of our body follows upon the command of our will. Of this we are every moment conscious. But the means by which this is effected, the energy by which the will performs so extraordinary an operation - of this we are so far from being immediately conscious that it must for ever escape our most diligent inquiry.

For, *first*, is there any principle in all nature more mysterious than the union of soul with body, by which a supposed spiritual substance acquires such an influence over a material one that the most refined thought is able to actuate the grossest matter? Were we empowered by a secret wish to remove mountains or control the planets in their orbit, this extensive authority would not be more extraordinary nor more beyond our comprehension. But if by consciousness we perceived any power or energy in the will, we must know this power; we must know its connection with the effect; we must know the secret union of soul and body, and the nature of both these substances by which the one is able to operate in so many instances upon the other.

Secondly, we are not able to move all the organs of the body with a like authority, though we cannot assign any reason besides experience for so remarkable a difference between one and the other. Why has the will an influence over the tongue and fingers, not over the heart and liver? This question would never embarrass us were we conscious of a power in the former case, not in the latter. We should then perceive, inde-

pendent of experience, why the authority of will over the organs of the body is circumscribed within such particular limits. Being in that case fully acquainted with the power or force by which it operates, we should also know why its influence reaches precisely to such boundaries and no farther.

A man suddenly struck with palsy in the leg or arm, or who had newly lost those members, frequently endeavours at first to move them and employ them in their usual offices. Here he is as much conscious of power to command such limbs as a man in perfect health is conscious of power to actuate any member which remains in its natural state and condition. But consciousness never deceives. Consequently, neither in the one case nor in the other are we ever conscious of any power. We learn the influence of our will from experience alone. And experience only teaches us how one event constantly follows another, without instructing us in the secret connection which binds them together and renders them inseparable.

Thirdly, we learn from anatomy that the immediate object of power in voluntary motion is not the member itself which is moved, but certain muscles and nerves and animal spirits, and, perhaps, something still more minute and more unknown, through which the motion is successively propagated ere it reach the member itself whose motion is the immediate object of volition. Can there be a more certain proof that the power by which this whole operation is performed, so far from being directly and fully known by an inward sentiment or consciousness, is to the last degree mysterious and unintelligible? Here the mind wills a certain event. Immediately another event, unknown to ourselves and totally different from the one intended, is produced. This event produces another, equally unknown, till at last, through a long succession, the desired event is produced. But if the original power were felt, it must be known. Were it known, its effect also must be known, since all power is relative to its effect. And *vice versa*, if the effect be not known the power cannot be known nor felt. How, indeed, can we be conscious of a power to move our limbs when we have no such power, but only that to move certain animal spirits, which, though they produce at last the motion of our limbs, yet operate in such

a manner as is wholly beyond our comprehension?

We may, therefore, conclude from the whole, I hope without any temerity, though with assurance, that our idea of power is not copied from any sentiment or consciousness of power within ourselves, when we give rise to animal motion or apply our limbs to their proper use and office. That their motion follows the command of the will is a matter of common experience, like other natural events. But the power or energy by which this is effected, like that in other natural events, is unknown and inconceivable.¹

Shall we, then, assert that we are conscious of a power or energy in our own minds, when, by an act or command of our will, we raise up a new idea, fix the mind to the contemplation of it, turn it on all sides, and at last dismiss it for some other idea when we think that we have surveyed it with sufficient accuracy? I believe the same arguments will prove that even this command of the will gives us no real idea of force or energy.

First, it must be allowed that when we know a power we know that very circumstance in the cause by which it is enabled to produce the effect, for these are supposed to be synonymous. We must, therefore, know both the cause and effect, and the relation between them. But do we pretend to be acquainted with the nature of the human soul and the nature of an idea, or the aptitude of the one to produce the other? This is a real creation, a production of something out of nothing, which implies a power so great that it may seem at first sight beyond the reach of any being less than infinite. At least, it must be owned that such a power is not

felt, nor known, nor even conceivable by the mind. We only feel the event—namely, the existence of an idea, consequent to a command of the will. But the manner in which this operation is performed, the power by which it is produced, is entirely beyond our comprehension.

Secondly, the command of the mind over itself is limited, as well as its command over the body; and these limits are not known by reason, or any acquaintance with the nature of cause and effect, but only by experience and observation, as in all other natural events and in the operation of external objects. Our authority over our sentiments and passions is much weaker than that over our ideas; and even the latter authority is circumscribed within very narrow boundaries. Will anyone pretend to assign the ultimate reason of these boundaries, or show why the power is deficient in one case, not in another?

Thirdly, this self-command is very different at different times. A man in health possesses more of it than one languishing with sickness. We are more master of our thoughts in the morning than in the evening; fasting than after a full meal. Can we give any reason for these variations except experience? Where, then, is the power of which we pretend to be conscious? Is there not here, either in a spiritual or material substance, or both, some secret mechanism or structure of parts upon which the effect depends, and which, being entirely unknown to us, renders the power or energy of the will equally unknown and incomprehensible?

Volition is surely an act of the mind with which we are sufficiently acquainted. Reflect upon it. Consider it on all sides. Do you find anything in it like this creative power by which it raises from nothing a new idea, and, with a kind of fiat, imitates the omnipotence of its Maker—if I may be allowed so to speak—who called forth into existence all the various scenes of nature? So far from being conscious of this energy in the will, it requires as certain experience as that of which we are possessed to convince us that such extraordinary effects do ever result from a simple act of volition.

The generality of mankind never find any difficulty in accounting for the more common and familiar operations of nature—such as the descent of heavy bodies, the growth of plants, the generation of

¹ It may be pretended that, the resistance which we meet with in bodies obliging us frequently to exert our force and call up all our power, this gives us the idea of force and power. It is this *nixus*, or strong endeavour, of which we are conscious, that is the original impression from which this idea is copied. But, first, we attribute power to a vast number of objects where we never can suppose this resistance or exertion of force to take place; to the Supreme Being, who never meets with any resistance; to the mind in its command over its ideas and limbs, in common thinking and motion, where the effect follows immediately upon the will without any exertion or summing up of force; to inanimate matter, which is not capable of this sentiment. Secondly, this sentiment of an endeavour to overcome resistance has no known connection with any event. What follows, it we know by experience, but could not know it *a priori*. It must, however, be confessed that the animal *nixus*, which we experience, though it can afford no accurate, precise idea of power, enters very much into that vulgar, inaccurate idea which is formed of it.

OF THE IDEA OF NECESSARY CONNECTION

animals, or the nourishment of bodies by food, but suppose that in all these cases they perceive the very force or energy of the cause by which it is connected with its effect, and is for ever infallible in its operation. They acquire by long habit such a turn of mind that upon the appearance of the cause they immediately expect with assurance its usual attendant and hardly conceive it possible that any other event could result from it. It is only on the discovery of extraordinary phenomena such as earthquakes, pestilence, and prodigies of any kind that they find themselves at a loss to assign a proper cause, and to explain the manner in which the effect is produced by it. It is usual for men in such difficulties to have recourse to some invisible intelligent principle as the immediate cause of that event which surprises them, and which they think cannot be accounted for from the common powers of nature. But philosophers who carry their scrutiny a little farther immediately perceive that even in the most familiar events the energy of the cause is as unintelligible as in the most unusual, and that we only learn by experience the frequent *conjunction* of objects, without being ever able to comprehend anything, like *connectio*, between them. Here then many philosophers think themselves obliged by reason to have recourse on all occasions to the same principle which the vulgar never appeal to but in cases that appear miraculous and supernatural. They acknowledge mind and intelligence to be, not only the ultimate and original cause of all things, but the immediate and sole cause of every event which appears in nature. They pretend that those objects which are commonly denominated *causes* are in reality nothing but *occasions*, and that the true and direct principle of every effect is not any power or force in nature, but a volition of the Supreme Being, who wills that such particular objects should for ever be conjoined with each other. Instead of saying, that one billiard-ball moves another by a force which it has derived from the author of nature, it is the Deity himself, they say, who, by a particular volition, moves the second ball, being determined to this operation by the impulse of the first ball in consequence of those general laws which he has laid down to himself in the government of the universe. But philoso-

phers advancing still in their inquiries discover that, as we are totally ignorant of the power on which depends the mutual operation of bodies, we are no less ignorant of that power on which depends the operation of mind on body, or of body on mind; nor are we able, either from our senses or consciousness, to assign the ultimate principle in one case more than in the other. The same ignorance, therefore, reduces them to the same conclusion. They assert that the Deity is the immediate cause of the union between soul and body, and that they are not the organs of sense, which being agitated by external objects, produce sensations in the mind, but that it is a particular volition of our omnipotent Maker which excites such a sensation in consequence of such a motion in the organ. In like manner, it is not any energy in the will that produces local motion in our members. It is God himself who is pleased to second our will, in itself impotent and to command that motion which we erroneously attribute to our own power and efficacy. Nor do philosophers stop at this conclusion. They sometimes extend the same inference to the mind itself in its internal operations. Our mental vision or conception of ideas is nothing but a revelation made to us by our Maker. When we voluntarily turn our thoughts to any object and raise up its image in the fancy, it is not the will which creates that idea. It is the universal Creator who discovers it to the mind and renders it present to us.

Thus according to these philosophers, everything is full of God. Not content with the principle that nothing exists but by his will, that nothing possesses any power but by his concession, they rob nature and all created beings of every power in order to render their dependence on the Deity still more sensible and immediate. They consider not that by this theory they diminish, instead of magnifying, the grandeur of those attributes which they affect so much to celebrate. It argues surely more power in the Deity to delegate a certain degree of power to inferior creatures than to produce everything by his own immediate volition. It argues more wisdom to contrive at first the fabric of the world with such perfect foresight that of itself, and by its proper operation, it may serve all the purposes of providence, than if the great Creator were obliged every moment to adjust its parts, and animate by his breath

all the wheels of that stupendous machine.

But if we would have a more philosophical confutation of this theory, perhaps the two following reflections may suffice.

First, it seems to me that this theory of the universal energy and operation of the Supreme Being is too bold ever to carry conviction with it to a man sufficiently apprised of the weakness of human reason and the narrow limits to which it is confined in all its operations. Though the chain of arguments which conduct to it were ever so logical, there must arise a strong suspicion, if not an absolute assurance, that it has carried us quite beyond the reach of our faculties, when it leads to conclusions so extraordinary, and so remote from common life and experience. We are got into fairyland long ere we have reached the last steps of our theory; and *there* we have no reason to trust our common methods of argument, or to think that our usual analogies and probabilities have any authority. Our line is too short to fathom such immense abysses. And, however we may flatter ourselves that we are guided in every step which we take by a kind of verisimilitude and experience, we may be assured that this fancied experience has no authority when we thus apply it to subjects that lie entirely out of the sphere of experience. But on this we shall have occasion to touch afterwards.¹

Secondly, I cannot perceive any force in the arguments on which this theory is founded. We are ignorant, it is true, of the manner in which bodies operate on each other. Their force or energy is entirely incomprehensible. But are we not equally ignorant of the manner or force by which a mind, even the supreme mind, operates either on itself or on body? Whence, I beseech you, do we acquire any idea of it? We have no sentiment or consciousness of this power in ourselves. We have no idea of the Supreme Being but what we learn from reflection on our own faculties. Were our ignorance, therefore, a good reason for rejecting anything, we should be led into that principle of denying all energy in the Supreme Being as much as in the grossest matter. We surely comprehend as little the operations of one as of the other. Is it more difficult to conceive that motion may arise from impulse than that it may arise

from volition? All we know is our profound ignorance in both cases.¹

PART II.

But to hasten to a conclusion of this argument, which is already drawn out to too great a length. We have sought in vain for an idea of power or necessary connection in all the sources from which we could suppose it to be derived. It appears that, in single instances of the operation of bodies, we never can, by our utmost scrutiny, discover anything but one event following another, without being able to comprehend any force or power by which the cause operates, or any connection between it and its supposed effect. The same difficulty occurs in contemplating the operations of mind on body—where we observe the motion of the latter to follow upon the volition of the former, but are not able to observe or conceive the tie which binds together the motion and volition, or the energy by which the mind produces this effect. The authority of the will over its own faculties and ideas is not a whit more comprehensible. So that, upon the whole, there appears not throughout all nature any one instance of connection which is conceivable by us. All events seem entirely loose and separate. One event follows another, but we never can observe any tie between them. They seem *conjoined*, but never *connected*. And as we can have no idea of anything which never appeared to our outward sense or

¹ I need not examine at length the *vis inertiae* which is so much talked of in the new philosophy, and which is ascribed to matter. We find by experience that a body at rest or in motion continues for ever in its present state till put from it by some new cause; and that a body impelled takes as much motion from the impelling body as it acquires itself. These are facts. When we call this a *vis inertiae* we only mark these facts, without pretending to have any idea of the inert power, in the same manner as when we talk of gravity we mean certain effects without comprehending that active power. It was never the meaning of Sir Isaac Newton to rob second causes of all force or energy, though some of his followers have endeavoured to establish that theory upon his authority. On the contrary, that great philosopher had recourse to an ethereal active fluid to explain his universal attraction; though he was so cautious and modest as to allow that it was a mere hypothesis, not to be insisted on without more experiments. I must confess that there is something in the fate of opinions a little extraordinary. Descartes insisted that doctrine of the universal and sole efficacy of the Deity without insisting on it. Malebranche and other Cartesians made it the foundation of all their philosophy. It had, however, no authority in England. Locke, Clarke, and Cudworth never so much as take notice of it, but suppose all along that matter has a real though subordinate and derived power. By what means has it become so prevalent among our modern metaphysicians?

inward sentiment, the necessary conclusion *seems* to be that we have no idea of connection or power at all, and that these words are absolutely without any meaning, when employed either in philosophical reasonings or common life.

But there still remains one method of avoiding this conclusion, and one source which we have not yet examined. When any natural object or event is presented it is impossible for us by any sagacity or penetration to discover, or even conjecture, without experience, what event will result from it, or to carry our foresight beyond that object which is immediately present to the memory and senses. Even after one instance or experiment, where we have observed a particular event to follow upon another we are not entitled to form a general rule, or foretell what will happen in like cases; it being justly esteemed an unpardonable temerity to judge of the whole course of nature from one single experiment, however accurate or certain. But when one particular species of event has always, in all instances, been conjoined with another we make no longer any scruple of foretelling one upon the appearance of the other, and of employing that reasoning which can alone assure us of any matter of fact or existence. We then call the one object *cause*, the other *effect*. We suppose that there is some connection between them; some power in the one by which it infallibly produces the other and operates with the greatest certainty and strongest necessity.

It appears, then, that this idea of a necessary connection among events arises from a number of similar instances which occur of the constant conjunction of these events; nor can that idea ever be suggested by any one of these instances, surveyed in all possible lights and positions. But there is nothing in a number of instances different from every single instance which is supposed to be exactly similar, except only that after a repetition of similar instances the mind is carried by habit upon the appearance of one event to expect its usual attendant, and to believe that it will exist. This connection, therefore, which we *feel* in the mind, this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression from which we form the idea of power or necessary connection. Nothing farther is in the case. Contemplate the subject on all sides; you will never find any other origin

of that idea. This is the sole difference between one instance, from which we can never receive the idea of connection, and a number of similar instances by which it is suggested. The first time a man saw the communication of motion by impulse, as by the shock of two billiard-balls, he could not pronounce that the one event was *connected*, but only that it was *conjoined* with the other. After he has observed several instances of this nature he then pronounces them to be *connected*. What alteration has happened to give rise to this new idea of *connection*? Nothing but that he now *feels* these events to be *connected* in his imagination, and can readily foretell the existence of one from the appearance of the other. When we say, therefore, that one object is connected with another we mean only that they have acquired a connection in our thought and give rise to this inference, by which they become proofs of each other's existence—a conclusion which is somewhat extraordinary, but which seems founded on sufficient evidence. Nor will its evidence be weakened by any general diffidence of the understanding or sceptical suspicion concerning every conclusion which is new and extraordinary. No conclusions can be more agreeable to scepticism than such as make discoveries concerning the weakness and narrow limits of human reason and capacity.

And what stronger instance can be produced of the surprising ignorance and weakness of the understanding than the present? For, surely, if there be any relation among objects which it imports to us to know perfectly, it is that of cause and effect. On this are founded all our reasonings concerning matter of fact or existence. By means of it alone we attain any assurance concerning objects which are removed from the present testimony of our memory and senses. The only immediate utility of all sciences is to teach us how to control and regulate future events by their causes. Our thoughts and inquiries are, therefore, every moment employed about this relation. Yet so imperfect are the ideas which we form concerning it that it is impossible to give any just definition of cause, except what is drawn from something extraneous and foreign to it. Similar objects are always conjoined with similar. Of this we have experience. Suitably to this experience, therefore, we may define a cause to be *an object followed by another, and where all*

the objects similar to the first are followed by objects similar to the second. Or in other words, where, if the first object had not been, the second never had existed. The appearance of a cause always conveys the mind by a customary transition to the idea of the effect. Of this also we have experience. We may, therefore, suitably to this experience, form another definition of cause, and call it *an object followed by another, and whose appearance always conveys the thought to that other.* But though both these definitions be drawn from circumstances foreign to the cause, we cannot remedy this inconvenience, or attain any more perfect definition which may point out that circumstance in the cause which gives it a connection with its effect. We have no idea of this connection, nor even any distinct notion what it is we desire to know, when we endeavour at a conception of it. We say, for instance, that the vibration of this string is the cause of this particular sound. But what do we mean by that affirmation? We either mean that *this vibration is followed by this sound, and that all similar vibrations have been followed by similar sounds; or, that this vibration is followed by this sound, and that upon the appearance of one the mind anticipates the senses and forms immediately an idea of the other.* We may consider the relation of cause and effect in either of these two lights; but beyond these we have no idea of it.¹

¹ According to these explications and definitions, the idea of *power* is relative as much as that of *cause*; and both have a reference to an effect, or some other event constantly conjoined with the former. When we consider the *unknown* circumstance of an object by which the degree or quantity of its effect is fixed and determined, we call that its *power*. And accordingly it is allowed by all philosophers that the effect is the measure of the power. But if they had any idea of power as it is in itself, why could not they measure it in itself? The dispute whether the force of a body in motion be as its velocity or the square of its velocity; this dispute, I say, need not be decided by comparing its effects in equal or unequal times, but by a direct mensuration and comparison. As to the frequent use of the words *force, power, energy, &c.* which everywhere occur in common conversation as well as in philosophy, that is no proof that we are acquainted in any instance with the connecting principle between cause and effect, or can account ultimately for the production of one thing to another. These words, as commonly used, have very loose meanings annexed to them, and their ideas are very uncertain and confused. No animal can put external bodies in motion without the sentiment of a *visus* or endeavour; and every animal has a sentiment or feeling from the stroke or blow of an external object that is in motion. These sensations, which are merely animal, and from which we can *a priori* draw no inference, we are apt to transfer to inanimate objects, and to suppose that they

To recapitulate, therefore, the reasonings of this section, every idea is copied from some preceding impression or sentiment, and where we cannot find any impression we may be certain that there is no idea. In all single instances of the operation of bodies or minds there is nothing that produces any impression, nor consequently can suggest any idea of power or necessary connection. But when many uniform instances appear, and the same object is always followed by the same event, we then begin to entertain the notion of cause and connection. We then *feel* a new sentiment or impression--to wit, a customary connection in the thought or imagination between one object and its usual attendant; and this sentiment is the original of that idea which we seek for. For as this idea arises from a number of similar instances, and not from any single instance, it must arise from that circumstance in which the number of instances differ from every individual instance. But this customary connection or transition of the imagination is the only circumstance in which they differ. In every other particular they are alike. The first instance which we saw of motion communicated by the shock of two billiard-balls (to return to this obvious illustration) is exactly similar to any instance that may at present occur to us; except only that we could not at first *infer* one event from the other, which we are enabled to do at present, after so long a course of uniform experience. I know not whether the reader will readily apprehend this reasoning. I am afraid that, should I multiply words about it, or throw it into a greater variety of lights, it would only become more obscure and intricate. In all abstract reasonings there is one point of view, which if we can happily hit we shall go further towards illustrating the subject than by all the eloquence in the world. This point of view we should endeavour to reach, and reserve the flowers of rhetoric for subjects which are more adapted to them.

have some such feelings whenever they transfer or receive motion. With regard to energies, which are exerted without our annexing to them any idea of communicated motion, we consider only the constant experienced conjunction of the events; and as we *feel* a customary connection between the ideas, we transfer that feeling to the objects, as nothing is more usual than to apply to external bodies every internal sensation which they occasion.

SECTION VIII.

OF LIBERTY AND NECESSITY

PART I.

It might reasonably be expected, in questions which have been canvassed and disputed with great eagerness since the first origin of science and philosophy, that the meaning of all the terms at least should have been agreed upon among the disputants, and our inquiries, in the course of two thousand years, been able to pass from words to the true and real subject of the controversy. For how easy may it seem to give exact definitions of the terms employed in reasoning, and make these definitions, not the mere sound of words, the object of future scrutiny and examination? But if we consider the matter more narrowly we shall be apt to draw a quite opposite conclusion. From this circumstance alone that a controversy has been long kept on foot, and remains still undecided— we may presume that there is some ambiguity in the expression, and that the disputants affix different ideas to the terms employed in the controversy. For as the faculties of the mind are supposed to be naturally alike in every individual, otherwise nothing could be more fruitless than to reason or dispute together, it were impossible, if men affix the same ideas to their terms, that they could so long form different opinions of the same subject, especially when they communicate their views, and each party turn themselves on all sides in search of arguments which may give them the victory over their antagonists. It is true, if men attempt the discussion of questions which lie entirely beyond the reach of human capacity, such as those concerning the origin of worlds or the economy of the intellectual system or region of spirits, they may long beat the air in their fruitless contests and never arrive at any determinate conclusion. But if the question regard any subject of common life and experience, nothing, one would think, could preserve the dispute so long undecided but some ambiguous expressions

which keep the antagonists still at a distance and hinder them from grappling with each other.

This has been the case in the long-disputed question concerning liberty and necessity, and to so remarkable a degree that, if I be not much mistaken, we shall find that all mankind, both learned and ignorant, have always been of the same opinion with regard to this subject, and that a few intelligible definitions would immediately have put an end to the whole controversy. I own that this dispute has been so much canvassed on all hands, and has led philosophers into such a labyrinth of obscure sophistry, that it is no wonder if a sensible reader indulge his case so far as to turn a deaf ear to the proposal of such a question, from which he can expect neither instruction nor entertainment. But the state of the argument here proposed may perhaps serve to renew his attention, as it has more novelty, promises at least some decision of the controversy, and will not much disturb his ease by any intricate or obscure reasoning.

I hope, therefore, to make it appear that all men have ever agreed in the doctrine both of necessity and of liberty, according to any reasonable sense which can be put on these terms, and that the whole controversy has hitherto turned merely upon words. We shall begin with examining the doctrine of necessity.

It is universally allowed that matter in all its operations is actuated by a necessary force, and that every natural effect is so precisely determined by the energy of its cause that no other effect in such particular circumstances could possibly have resulted from it. The degree and direction of every motion is by the laws of nature prescribed with such exactness that a living creature may as soon arise from the shock of two bodies as motion in any other degree or direction than what is actually produced by it. Would we, therefore, form a just and precise idea of

necessity, we must consider whence that idea arises when we apply it to the operation of bodies.

It seems evident that, if all the scenes of nature were continually shifted in such a manner that no two events bore any resemblance to each other, but every object was entirely new, without any similitude to whatever had been seen before, we should never in that case have attained the least idea of necessity, or of a connection among these objects. We might say upon such a supposition that one object or event has followed another; not that one was produced by the other. The relation of cause and effect must be utterly unknown to mankind. Inference and reasoning concerning the operations of nature would from that moment be at an end, and the memory and senses remain the only canals by which the knowledge of any real existence could possibly have access to the mind. Our idea, therefore, of necessity and causation arises entirely from the uniformity observable in the operations of nature, where similar objects are constantly conjoined together, and the mind is determined by custom to infer the one from the appearance of the other. These two circumstances form the whole of that necessity which we ascribe to matter. Beyond the constant *conjunction* of similar objects, and the consequent *inference* from one to the other, we have no notion of any necessity or connection.

If it appear, therefore, that all mankind have ever allowed, without any doubt or hesitation, that these two circumstances take place in the voluntary actions of men and in the operations of mind, it must follow that all mankind have ever agreed in the doctrine of necessity, and that they have hitherto disputed merely for not understanding each other.

As to the first circumstance, the constant and regular conjunction of similar events, we may possibly satisfy ourselves by the following considerations. It is universally acknowledged that there is a great uniformity among the actions of men in all nations and ages, and that human nature remains still the same in its principles and operations. The same motives always produce the same actions. The same events follow from the same causes. Ambition, avarice, self-love, vanity, friendship, generosity, public spirit: these passions, mixed in various degrees, and distributed through society,

have been from the beginning of the world, and still are, the source of all the actions and enterprises which have ever been observed among mankind. Would you know the sentiments, inclinations, and course of life of the Greeks and Romans? Study well the temper and actions of the French and English. You cannot be much mistaken in transferring to the former *most* of the observations which you have made with regard to the latter. Mankind are so much the same in all times and places that history informs us of nothing new or strange in this particular. Its chief use is only to discover the constant and universal principles of human nature by showing men in all varieties of circumstances and situations, and furnishing us with materials from which we may form our observations and become acquainted with the regular springs of human action and behaviour. These records of wars, intrigues, factions, and revolutions are so many collections of experiments by which the politician or moral philosopher fixes the principles of his science, in the same manner as the physician or natural philosopher becomes acquainted with the nature of plants, minerals, and other external objects by the experiments which he forms concerning them. Nor are the earth, water, and other elements examined by Aristotle and Hippocrates more like to those which at present lie under our observation than the men described by Polybius and Tacitus are to those who now govern the world.

Should a traveller returning from a far country bring us an account of men wholly different from any with whom we were ever acquainted; men who were entirely divested of avarice, ambition, or revenge; who knew no pleasure but friendship, generosity, and public spirit; we should immediately, from these circumstances, detect the falsehood, and prove him a liar, with the same certainty as if he had stuffed his narration with stories of centaurs and dragons, miracles and prodigies. And if we would explode any forgery in history we cannot make use of a more convincing argument than to prove that the actions ascribed to any person are directly contrary to the course of nature, and that no human motives in such circumstances could ever induce him to such a conduct. The veracity of Quintus Curtius is as much to be suspected when he describes the supernatural courage of Alexander, by which

he was hurried on singly to attack multitudes, as when he describes his supernatural force and activity, by which he was able to resist them. So readily and universally do we acknowledge a uniformity in human motives and actions, as well as in the operations of body.

Hence, likewise, the benefit of that experience acquired by long life and a variety of business and company, in order to instruct us in the principles of human nature and regulate our future conduct as well as speculation. By means of this guide we mount up to the knowledge of men's inclinations and motives from their actions, expressions, and even gestures, and again descend to the interpretation of their actions from our knowledge of their motives and inclinations. The general observations treasured up by a course of experience give us the clue of human nature, and teach us to unravel all its intricacies. Pretexts and appearances no longer deceive us. Public declarations pass for the specious colouring of a cause. And though virtue and honour be allowed their proper weight and authority, that perfect disinterestedness, so often pretended to, is never expected in multitudes and parties, seldom in their leaders, and scarcely even in individuals of any rank or station. But were there no uniformity in human actions, and were every experiment which we could form of this kind irregular and anomalous, it were impossible to collect any general observations concerning mankind; and no experience, however accurately digested by reflection, would ever serve to any purpose. Why is the aged husbandman more skilful in his calling than the young beginner, but because there is a certain uniformity in the operations of the sun, rain, and earth towards the production of vegetables, and experience teaches the old practitioner the rules by which this operation is governed and directed?

We must not, however, expect that this uniformity of human actions should be carried to such a length as that all men in the same circumstances will always act precisely in the same manner, without making any allowance for the diversity of characters, prejudices, and opinions. Such a uniformity in every particular is found in no part of nature. On the contrary, from observing the variety of conduct in different men, we are enabled to form a greater variety of maxims which

still suppose a degree of uniformity and regularity.

Are the manners of men different in different ages and countries? We learn thence the great force of custom and education, which mould the human mind from its infancy and form it into a fixed and established character. Is the behaviour and conduct of the one sex very unlike that of the other? Is it thence we become acquainted with the different characters which nature has impressed upon the sexes, and which she preserves with constancy and regularity? Are the actions of the same person much diversified in the different periods of his life, from infancy to old age? This affords room for many general observations concerning the gradual change of our sentiments and inclinations, and the different maxims which prevail in the different ages of human creatures. Even the characters which are peculiar to each individual have a uniformity in their influence, otherwise our acquaintance with the persons and our observation of their conduct could never teach us their dispositions, or serve to direct our behaviour with regard to them.

I grant it possible to find some actions which seem to have no regular connection with any known motives, and are exceptions to all the measures of conduct which have ever been established for the government of men. But if we would willingly know what judgment should be formed of such irregular and extraordinary actions, we may consider the sentiments commonly entertained with regard to those irregular events which appear in the course of nature and the operations of external objects. All causes are not conjoined to their usual effects with like uniformity. An artificer who handles only dead matter may be disappointed of his aim, as well as the politician who directs the conduct of sensible and intelligent agents.

The vulgar, who take things according to their first appearance, attribute the uncertainty of events to such an uncertainty in the causes as makes the latter often fail of their usual influence, though they meet with no impediment in their operation. But philosophers, observing that almost in every part of nature there is contained a vast variety of springs and principles which are hid by reason of their minuteness or remoteness, find that it is at least possible the

contrariety of events may not proceed from any contingency in the cause, but from the secret operation of contrary causes. This possibility is converted into certainty by farther observation, when they remark that upon an exact scrutiny a contrariety of effects always betrays a contrariety of causes, and proceeds from their mutual opposition. A peasant can give no better reason for the stopping of any clock or watch than to say that it does not commonly go right; but an artist easily perceives that the same force in the spring or pendulum has always the same influence on the wheels, but fails of its usual effect, perhaps by reason of a grain of dust, which puts a stop to the whole movement. From the observation of several parallel instances, philosophers form a maxim that the connection between all causes and effects is equally necessary, and that its seeming uncertainty in some instances proceeds from the secret opposition of contrary causes.

Thus, for instance, in the human body, when the usual symptoms of health or sickness disappoint our expectation, when medicines operate not with their wonted powers, when irregular events follow from any particular cause, the philosopher and physician are not surprised at the matter, nor are ever tempted to deny, in general, the necessity and uniformity of those principles by which the animal economy is conducted. They know that a human body is a mighty complicated machine; that many secret powers lurk in it, which are altogether beyond our comprehension; that to us it must often appear very uncertain in its operations; and that therefore the irregular events which outwardly discover themselves can be no proof that the laws of nature are not observed with the greatest regularity in its internal operations and government.

The philosopher, if he be consistent, must apply the same reasoning to the actions and volitions of intelligent agents. The most irregular and unexpected resolutions of men may frequently be accounted for by those who know every particular circumstance of their character and situation. A person of an obliging disposition gives a peevish answer; but he has the toothache, or has not dined. A stupid fellow discovers an uncommon alacrity in his carriage; but he has met with a sudden piece of good fortune. Or even when an action, as sometimes happens, cannot be particularly accounted

for, either by the person himself or by others, we know, in general, that the characters of men are, to a certain degree, inconstant and irregular. This is, in a manner, the constant character of human nature, though it be applicable, in a more particular manner, to some persons who have no fixed rule for their conduct, but proceed in a continued course of caprice and inconstancy. The internal principles and motives may operate in a uniform manner, notwithstanding these seeming irregularities—in the same manner as the winds, rain, clouds, and other variations of the weather are supposed to be governed by steady principles, though not easily discoverable by human sagacity and inquiry.

Thus it appears not only that the conjunction between motives and voluntary actions is as regular and uniform as that between the cause and effect in any part of nature, but also that this regular conjunction has been universally acknowledged among mankind, and has never been the subject of dispute, either in philosophy or common life. Now, as it is from past experience that we draw all inferences concerning the future, and as we conclude that objects will always be conjoined together which we find to have always been conjoined, it may seem superfluous to prove that this experienced uniformity in human actions is a source whence we draw *inferences* concerning them. But in order to throw the argument into a greater variety of lights we shall also insist, though briefly, on this latter topic.

The mutual dependence of men is so great in all societies that scarce any human action is entirely complete in itself, or is performed without some reference to the actions of others, which are requisite to make it answer fully the intention of the agent. The poorest artificer who labours alone expects at least the protection of the magistrate to ensure him the enjoyment of the fruits of his labour. He also expects that when he carries his goods to market and offers them at a reasonable price he shall find purchasers, and shall be able, by the money he acquires, to engage others to supply him with those commodities which are requisite for his subsistence. In proportion as men extend their dealings, and render their intercourse with others more complicated, they always comprehend, in their schemes of life, a greater variety of

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voluntary actions, which they expect, from the proper motives, to co-operate with their own. In all these conclusions they take their measures from past experience, in the same manner as in their reasonings concerning external objects, and firmly believe that men as well as all the elements, are to continue in their operations the same that they have ever found them. A manufacturer reckons upon the labour of his servants for the execution of any work as much as upon the tools which he employs, and would be equally surprised were his expectations disappointed. In short this experiment of inference and reasoning concerning the actions of others enters so much into human life that no man while awake is ever a moment without employing it. Have we not reason therefore to affirm that all mankind have always agreed in the doctrine of necessity according to the foregoing definition and explanation of it?

Nor have philosophers ever entertained a different opinion from the people in this particular. For not to mention that almost every action of their life supposes that opinion there are even few of the speculative parts of learning to which it is not essential. What would become of *history* had we not a dependence on the veracity of the historian according to the experience which we have had of mankind? How could *politics* be a science if laws and forms of government had not a uniform influence upon society? Where would be the foundation of *morals* if particular characters had no certain or determinate power to produce particular sentiments, and if these sentiments had no constant operation on actions? And with what pretence could we employ our *criticism* upon any poet or polite author if we could not pronounce the conduct and sentiments of his actors either natural or unnatural to such characters and in such circumstances? It seems almost impossible, therefore, to engage either in science or action of any kind without acknowledging the doctrine of necessity, and this inference from motive to voluntary actions, from characters to conduct.

And, indeed, when we consider how *natural* and *moral* evidence link together, and form only one chain of argument, we shall make no scruple to say that they are of the same nature and derived from the same principles. A

prisoner who has neither money nor interest discovers the impossibility of his escape as well when he considers the obstinacy of the gaoler as the walls and bars with which he is surrounded, and, in all attempts for his freedom, chooses rather to work upon the stone and iron of the one than upon the inflexible nature of the other. The same prisoner, when conducted to the scaffold, foresees his death as certainly from the constancy and fidelity of his guards as from the operation of the axe or wheel. His mind runs along a certain train of ideas. The refusal of the soldiers to consent to his escape, the action of the executioner, the separation of the head and body, bleeding, convulsive motions and death. Here is a connected chain of natural causes and voluntary actions, but the mind feels no difference between them in passing from one link to another nor is less certain of the future event than if it were connected with the objects present to the memory or senses by a train of causes cemented together by what we are pleased to call a *physical* necessity. The same experienced man has the same effect on the mind whether the united objects be motives, actions and actions, or figure and motion. We may change the name of things but their nature and their operation on the understanding never change.

Were a man whom I know to be honest and open and with whom I live in intimate friendship, to come into my house where I am surrounded with my servants. I rest assured that he is not to stand me before he leaves it in order to rob me of my silver standish, and I no more suspect this event than in the falling of the house itself, which is new, and solidly built and founded. *But he may have been seized with a sudden and unknown frenzy.* So may a sudden earthquake arise, and shake and tumble my house about my ears. I shall, therefore, change the suppositions. I shall say that I know with certainty that he is not to put his hand into the fire and hold it there till it be consumed. And this event I think I can foretell with the same assurance as that, if he throw himself out at the window and meet with no obstruction, he will not remain a moment suspended in the air. No suspicion of an unknown frenzy can give the least possibility to the former event, which is so contrary to all the known principles of

human nature. A man who at noon leaves his purse full of gold on the pavement at Charing Cross may as well expect that it will fly away like a feather as that he will find it untouched an hour after. Above one half of human reasonings contain inferences of a similar nature, attended with more or less degrees of certainty proportioned to our experience of the usual conduct of mankind in such particular situations.

I have frequently considered what could possibly be the reason why all mankind, though they have ever without hesitation acknowledged the doctrine of necessity in their whole practice and reasoning, have yet discovered such a reluctance to acknowledge it in words, and have rather shown a propensity in all ages to profess the contrary opinion. The matter, I think, may be accounted for after the following manner. If we examine the operations of body, and the production of effects from their causes we shall find that all our faculties can never carry us further in our knowledge of this relation than barely to observe that particular objects are *constantly conjoined* together, and that the mind is carried by a *customary transition*, from the appearance of one to the belief of the other. But, though this conclusion concerning human ignorance be the result of the strictest scrutiny of this subject men still entertain a strong propensity to believe that they penetrate further into the powers of nature and perceive something like a necessary connection between the cause and the effect. When, again, they turn their reflections towards the operations of their own minds, and *feel* no such connection of the motive and the action they are thence apt to suppose that there is a difference between the effects which result from material force and those which arise from thought and intelligence. But being once convinced that we know nothing farther of causation of any kind than merely the *constant conjunction* of objects, and the consequent *inference* of the mind from one to another, and finding that these two circumstances are universally allowed to have place in voluntary actions, we may be more easily led to own the same necessity common to all causes. And though this reasoning may contradict the systems of many philosophers in ascribing necessity to the determinations of the will, we shall find, upon reflection, that they dissent from it

in words only, not in their real sentiment. Necessity, according to the sense in which it is here taken, has never yet been rejected, nor can ever, I think, be rejected, by any philosopher. It may only, perhaps, be pretended that the mind can perceive in the operations of matter some further connection between the cause and effect, and connection that has not place in voluntary actions of intelligent beings. Now, whether it be so or not can only appear upon examination, and it is incumbent on these philosophers to make good their assertion by defining or describing that necessity and pointing it out to us in the operations of material causes.

It would seem indeed that men begin at the wrong end of this question concerning liberty and necessity when they enter upon it by examining the faculties of the soul the influence of the understanding, and the operations of the will. Let them first discuss a more simple question, namely the operations of body and of brute unintelligent matter, and try whether they can thence form any idea of causation and necessity except that of a constant conjunction of objects and subsequent inference of the mind from one to another. If these circumstances form in reality the whole of that necessity which we conceive in matter, and if the circumstances be also universally acknowledged to take place in the operations of the mind the dispute is at an end, at least, must be owned to be thenceforth merely verbal. But as long as we will rashly suppose that we have some further idea of necessity and causation in the operations of external objects, at the same time that we can find nothing further in the voluntary actions of the mind there is no possibility of bringing the question to any determinate issue while we proceed upon so erroneous a supposition. The only method of undeceiving us is to mount up higher, to examine the narrow extent of science when applied to material causes, and to convince ourselves that all we know of them is the constant conjunction and inference above mentioned. We may, perhaps, find that it is with difficulty we are induced to fix such narrow limits to human understanding. But we can afterwards find no difficulty when we come to apply this doctrine to the actions of the will. For as it is evident that these have a regular conjunction with motives and

circumstances and characters, and as we always draw inferences from one to the other, we must be obliged to acknowledge in words that necessity which we have already avowed in every deliberation of our lives and in every step of our conduct and behaviour.¹

But to proceed in this reconciling project with regard to the question of liberty and necessity, the most contentious question of metaphysics, the most contentious science, it will not require many words to prove that all mankind have ever agreed in the doctrine of liberty as well as in that of necessity, and that the whole dispute, in this respect also, has been hitherto merely verbal. For what is meant by liberty when applied to voluntary actions? We cannot surely mean that actions have so little connection with motives, inclinations, and circumstances that one does not follow with a certain degree of uniformity from the other, and that one affords no inference by which we can conclude the existence of the other. For these are plain and acknowledged matters of fact. By liberty, then, we can

only mean a *power of acting or not acting, according to the determinations of the will*—that is, if we choose to remain at rest, we may; if we choose to move, we also may. Now, this hypothetical liberty is universally allowed to belong to everyone who is not a prisoner and in chains. Here, then, is no subject of dispute.

Whatever definition we may give of liberty, we should be careful to observe two requisite circumstances: *first*, that it be consistent with plain matter of fact; *secondly*, that it be consistent with itself. If we observe these circumstances and render our definition intelligible, I am persuaded that all mankind will be found of one opinion with regard to it.

It is universally allowed that nothing exists without a cause of its existence, and that chance, when strictly examined, is a mere negative word, and means not any real power which has anywhere a being in nature. But it is pretended that some causes are necessary, some not necessary. Here, then, is the advantage of definitions. Let anyone *define* a cause without comprehending as a part of the definition a *necessary connection* with its effect, and let him show distinctly the origin of the idea expressed by the definition, and I shall readily give up the whole controversy. But if the foregoing explanation of the matter be received, this must be absolutely impracticable. Had not objects a regular conjunction with each other, we should never have entertained any notion of cause and effect; and this regular conjunction produces that inference of the understanding which is the only connection that we can have any comprehension of. Whoever attempts a definition of cause exclusive of these circumstances will be obliged either to employ unintelligible terms or such as are synonymous to the term which he endeavours to define.² And if the definition above mentioned be admitted, liberty, when opposed to necessity, not to constraint, is the same thing with chance, which is universally allowed to have no existence.

¹ The prevalence of the doctrine of liberty may be accounted for from another cause: *viz.* a false sensation or seeming experience which we have, or may have, of liberty or indifference in many of our actions. The necessity of any action, whether of matter or of mind, is not, properly speaking, a quality in the agent, but in any thinking or intelligent being who may consider the action; and it consists chiefly in the determination of his thoughts to infer the existence of that action from some preceding objects; as liberty, when opposed to necessity, is nothing but the want of that determination, and a certain looseness or indifference which we feel in passing or not passing from the idea of one object to that of any succeeding one. Now we may observe that, though in *reflecting* on human actions we seldom feel such a looseness or indifference, but are commonly able to infer them with considerable certainty from their motives, and from the dispositions of the agent, yet it frequently happens that in *performing* the actions themselves we are sensible of something like it. And as all resembling objects are readily taken for each other, this has been employed as a demonstrative and even intuitive proof of human liberty. We feel that our actions are subject to our will on most occasions, and imagine we feel that the will itself is subject to nothing, because, when by a denial of it we are provoked to try, we feel that it moves easily every way and produces an image of itself (or a *Volunté*, as it is called in the schools) even on that side on which it did not settle. This image or faint motion, we persuade ourselves, could at that time have been completed into the thing itself, because, should that be denied, we find, upon a second trial, that at present it can. We consider not that the fantastical desire of showing liberty is here the motive of our actions. And it seems certain that, however we may imagine we feel a liberty within ourselves, a spectator can commonly infer our actions from our motives and character, and even where he cannot he concludes, in general, that he might, were he perfectly acquainted with every circumstance of our situation and temper, and the most secret springs of our complexion and disposition. Now, this is the very essence of necessity, according to the foregoing doctrine.

² Thus, if a cause be defined that *which produces anything*, it is easy to observe that *producing* is synonymous to *causing*. In like manner, if a cause be defined that *by which anything exists*, this is liable to the same objection. For what is meant by these words *by which*? Had it been said that a cause is that after which *anything constantly exists*, we should have understood the terms. For this is, indeed, all we know of the matter. And this constancy forms the very essence of necessity, nor have we any other idea of it.

PART II.

There is no method of reasoning more common, and yet none more blamable, than in philosophical disputes to endeavour the refutation of any hypothesis by a pretence of its dangerous consequences to religion and morality. When any opinion leads to absurdities it is certainly false; but it is not certain that an opinion is false because it is of dangerous consequence. Such topics, therefore, ought entirely to be forborne, as serving nothing to the discovery of truth, but only to make the person of an antagonist odious. This I observe in general, without pretending to draw any advantage from it. I frankly submit to an examination of this kind, and shall venture to affirm that the doctrines, both of necessity and of liberty, as above explained, are not only consistent with morality, but are absolutely essential to its support.

Necessity may be defined two ways, conformably to the two definitions of *cause*, of which it makes an essential part. It consists either in the constant conjunction of like objects, or in the inference of the understanding from one object to another. Now, necessity in both these senses (which, indeed, are at bottom the same) has universally, though tacitly, in the schools, in the pulpit, and in common life, been allowed to belong to the will of man; and no one has ever pretended to deny that we can draw inferences concerning human actions, and that those inferences are founded on the experienced union of like actions with like motives, inclinations, and circumstances. The only particular in which anyone can differ is that either perhaps he will refuse to give the name of necessity to this property of human actions—but, as long as the meaning is understood, I hope the word can do no harm—or that he will maintain it possible to discover something farther in the operations of matter. But this, it must be acknowledged, can be of no consequence to morality or religion, whatever it may be to natural philosophy or metaphysics. We may here be mistaken in asserting that there is no idea of any other necessity or connection in the actions of body. But surely we ascribe nothing to the actions of the mind but what everyone does and must readily allow of. We change no circumstance in the received orthodox system with regard to the will,

but only in that with regard to material objects and causes. Nothing, therefore, can be more innocent, at least, than this doctrine.

All laws being founded on rewards and punishments, it is supposed, as a fundamental principle, that these motives have a regular and uniform influence on the mind, and both produce the good and prevent the evil actions. We may give to this influence what name we please, but as it is usually conjoined with the action it must be esteemed a *cause*, and be looked upon as an instance of that necessity which we would here establish.

The only proper object of hatred or vengeance is a person or creature endowed with thought and consciousness; and when any criminal or injurious actions excite that passion it is only by their relation to the person or connection with him. Actions are, by their very nature, temporary and perishing; and where they proceed not from some *cause* in the character and disposition of the person who performed them, they can neither redound to his honour if good, nor infamy if evil. The actions themselves may be blamable, they may be contrary to all the rules of morality and religion, but the person is not answerable for them; and as they proceed from nothing in him that is durable and constant, and leave nothing of that nature behind them, it is impossible he can, upon their account, become the object of punishment or vengeance. According to the principle, therefore, which denies necessity, and consequently causes, a man is as pure and untainted after having committed the most horrid crime as at the first moment of his birth; nor is his character anywise concerned in his actions, since they are not derived from it, and the wickedness of the one can never be used as a proof of the depravity of the other.

Men are not blamed for such actions as they perform ignorantly and casually, whatever may be the consequences. Why—but because the principles of these actions are only momentary, and terminate in them alone? Men are less blamed for such actions as they perform hastily and unpremeditatedly than for such as proceed from deliberation. For what reason—but because a hasty temper, though a constant cause or principle in the mind, operates only by intervals, and infects not the whole character? Again,

repentance wipes off every crime if attended with a reformation of life and manners. How is this to be accounted for—but by asserting that actions render a person criminal merely as they are proofs of criminal principles in the mind, and when, by an alteration of these principles, they cease to be just proofs, they likewise cease to be criminal? But, except upon the doctrine of necessity, they never were just proofs, and consequently never were criminal.

It will be equally easy to prove, and from the same arguments, that *liberty*, according to that definition above mentioned, in which all men agree, is also essential to morality, and that no human actions, where it is wanting, are susceptible of any moral qualities or can be the objects either of approbation or dislike. For, as actions are object of our moral sentiment so far only as they are indications of the internal character, passion, and affections it is impossible that they can give rise either to praise or blame where they proceed not from these principles, but are derived altogether from external violence.

I pretend not to have obviated or removed all objections to this theory with regard to necessity and liberty. I can foresee other objections derived from topics which have not here been treated of. It may be said for instance that if voluntary actions be subjected to the same laws of necessity with the operations of matter, there is a continued chain of necessary causes preordained and predetermined reaching from the original cause of all to every single volition of every human creature. No contingency anywhere in the universe, no indifference, no liberty. While we act we are at the same time acted upon. The ultimate Author of all our volitions is the Creator of the world who first bestowed motion on this immense machine, and placed all beings in that particular position whence every subsequent event by an inevitable necessity must result. Human actions, therefore, either can have no moral turpitude at all as proceeding from so good a cause, or, if they have any turpitude, they must involve our Creator in the same guilt while he is acknowledged to be their ultimate cause and author. For, as a man who fired a mine is answerable for all the consequences, whether the train he employed be long or short, so wherever a continued chain of necessary causes is

fixed, that Being, either finite or infinite, who produces the first is likewise the author of all the rest, and must both bear the blame and acquire the praise which belong to them. Our clear and unalterable ideas of morality establish this rule upon unquestionable reasons when we examine the consequences of any human action, and these reasons must still have greater force when applied to the volitions and intentions of a Being infinitely wise and powerful. Ignorance or impotence may be pleaded for so limited a creature as man, but those imperfections have no place in our Creator. He foresaw, he ordained, he intended all those actions of men which we so rashly pronounce criminal. And we must therefore conclude either that they are not criminal, or that the Deity, not man, is accountable for them. But as either of these positions is absurd and impious it follows that the doctrine from which they are deduced cannot possibly be true as being liable to all the same objections. An absurd consequence if necessary, proves the original doctrine to be absurd, in the same manner as criminal actions render criminal the original cause if the connection between them be necessary and inevitable.

This objection consists of two parts, which we shall examine separately. *first*, that if human actions can be traced up by a necessary chain to the Deity, they can never be criminal on account of the infinite perfection of that Being from whom they are derived and who can intend nothing but what is altogether good and laudable. Or, *secondly*, if they be criminal we must retract the attribute of perfection which we ascribe to the Deity and must acknowledge him to be the ultimate author of guilt and moral turpitude in all his creatures.

The answer to the first objection seems obvious and convincing. There are many philosophers who, after an exact scrutiny of all the phenomena of nature, conclude that the whole, considered as one system, is in every period of its existence ordered with perfect benevolence, and that the utmost possible happiness will, in the end, result to all created beings without any mixture of positive or absolute ill or misery. Every physical ill, say they, makes an essential part of this benevolent system, and could not possibly be removed even by the Deity himself, considered as a wise agent, without giving entrance to greater ill or excluding greater good.

which will result from it. From this theory some philosophers, and the ancient Stoics among the rest, derived a topic of consolation under all afflictions, while they taught their pupils that those ills under which they laboured were, in reality, goods to the universe, and that to an enlarged view, which could comprehend the whole system of nature, every event became an object of joy and exultation. But, though this topic be specious and sublime, it was soon found in practice weak and ineffectual. You would surely more irritate than appease a man lying under the racking pains of the gout by preaching up to him the rectitude of those general laws which produced the malignant humours in his body and led them through the proper canals to the sinews and nerves, where they now excite such acute torments. These enlarged views may, for a moment, please the imagination of a speculative man who is placed in ease and security; but neither can they dwell with constancy on his mind, even though undisturbed by the emotions of pain or passion; much less can they maintain their ground when attacked by such powerful antagonists. The affections take a narrower and more natural survey of their object, and by an economy more suitable to the infirmity of human minds regard alone the beings around us, and are actuated by such events as appear good or ill to the private system.

The case is the same with *moral* as with *physical* ill. It cannot reasonably be supposed that those remote considerations, which are found of so little efficacy with regard to one, will have a more powerful influence with regard to the other. The mind of man is so formed by nature that, upon the appearance of certain characters, dispositions, and actions, it immediately feels the sentiment of approbation or blame; nor are there any emotions more essential to its frame and constitution. The characters which engage our approbation are chiefly such as contribute to the peace and security of human society, as the characters which excite blame are chiefly such as tend to public detriment and disturbance. Whence it may reasonably be presumed that the moral sentiments arise either mediately or immediately from a reflection of these opposite interests.

What though philosophical meditations establish a different opinion or conjecture; that everything is right with regard to the whole; and that the qualities which disturb society are, in the main, as beneficial and are as suitable to the primary intention of nature as those which more directly promote its happiness and welfare? Are such remote and uncertain speculations able to counterbalance the sentiments which arise from the natural and immediate view of the objects? A man who is robbed of a considerable sum, does he find his vexation for the loss anywise diminished by these sublime reflections? Why, then, should his moral resentment against the crime be supposed incompatible with them? Or, why should not the acknowledgment of a real distinction between vice and virtue be reconcilable to all speculative systems of philosophy, as well as that of a real distinction between personal beauty and deformity? Both these distinctions are founded in the natural sentiments of the human mind. And these sentiments are not to be controlled or altered by any philosophical theory or speculation whatsoever.

The second objection admits not of so easy and satisfactory an answer; nor is it possible to explain distinctly how the Deity can be the mediate cause of all the actions of men without being the author of sin and moral turpitude. These are mysteries, which mere natural and unassisted reason is very unfit to handle; and whatever system she embraces, she must find herself involved in inextricable difficulties, and even contradictions, at every step which she takes with regard to such subjects. To reconcile the indifference and contingency of human actions with prescience, or to defend absolute decrees, and yet free the Deity from being the author of sin, has been found hitherto to exceed all the power of philosophy. Happy, if she be thence sensible of her temerity when she pries into these sublime mysteries, and, leaving a scene so full of obscurities and perplexities, return, with suitable modesty, to her true and proper province—the examination of common life—where she will find difficulties enough to employ her inquiries without launching into so boundless an ocean of doubt, uncertainty, and contradiction!

SECTION IX.

OF THE REASON OF ANIMALS

ALL our reasonings concerning matter of fact are founded on a species of analogy, which leads us to expect from any cause the same events which we have observed to result from similar causes. Where the causes are entirely similar the analogy is perfect, and the inference drawn from it is regarded as certain and conclusive; nor does any man ever entertain a doubt, when he sees a piece of iron, that it will have weight and cohesion of parts, as in all other instances which have ever fallen under his observation. But where the objects have not so exact a similarity the analogy is less perfect, and the inference is less conclusive, though still it has some force in proportion to the degree of similarity and resemblance. The anatomical observations formed upon one animal are, by this species of reasoning, extended to all animals; and it is certain that when the circulation of the blood, for instance, is clearly proved to have place in one creature, as a frog, or fish, it forms a strong presumption that the same principle has place in all. These analogical observations may be carried farther, even to this science of which we are now treating; and any theory by which we explain the operations of the understanding, or the origin and connection of the passions in man, will acquire additional authority if we find that the same theory is requisite to explain the same phenomena in all other animals. We shall make trial of this, with regard to the hypothesis by which we have, in the foregoing discourse, endeavoured to account for all experimental reasonings; and it is hoped that this new point of view will serve to confirm all our former observations.

First, it seems evident that animals as well as men learn many things from experience, and infer that the same events will always follow from the same causes. By this principle they become acquainted with the more obvious properties of external objects, and gradually from their birth treasure up a knowledge

of the nature of fire, water, earth, stones, heights, depths, etc., and of the effects which result from their operation. The ignorance and inexperience of the young are here plainly distinguishable from the cunning and sagacity of the old, who have learned, by long observance, to avoid what hurt them, and to pursue what gave ease or pleasure. A horse that has been accustomed to the field becomes acquainted with the proper height which he can leap, and will never attempt what exceeds his force and ability. An old greyhound will trust the more fatiguing part of the chase to the younger, and will place himself so as to meet the hare in her doubles; nor are the conjectures which he forms on this occasion founded in anything but his observation and experience.

This is still more evident from the effects of discipline and education on animals, who, by the proper application of rewards and punishments, may be taught any course of action, and most contrary to their natural instincts and propensities. Is it not experience which renders a dog apprehensive of pain when you menace him, or lift up the whip to beat him? Is it not even experience which makes him answer to his name, and infer, from such an arbitrary sound, that you mean him rather than any of his fellows, and intend to call him when you pronounce it in a certain manner, and with a certain tone and accent?

In all these cases we may observe that the animal infers some fact beyond what immediately strikes his senses, and that this inference is altogether founded on past experience, while the creature expects from the present object the same consequences which it has always found in its observation to result from similar objects.

Secondly, it is impossible that this inference of the animal can be founded on any process of argument or reasoning by which he concludes that like events must follow like objects, and that the course of

nature will always be regular in its operations. For if there be in reality any arguments of this nature, they surely lie too abstruse for the observation of such imperfect understandings; since it may well employ the utmost care and attention of a philosophic genius to discover and observe them. Animals, therefore, are not guided in these inferences by reasoning; neither are children; neither are the generality of mankind in their ordinary actions and conclusions; neither are philosophers themselves, who, in all the active parts of life, are, in the main, the same with the vulgar, and are governed by the same maxims. Nature must have provided some other principle of more ready and more general use and application; nor can an operation of such immense consequence in life as that of inferring effects from causes be trusted to the uncertain process of reasoning and argumentation. Were this doubtful with regard to men, it seems to admit of no question with regard to the brute creation; and, the conclusion being once firmly established in the one, we have a strong presumption, from all the rules of analogy, that it ought to be universally admitted without any exception or reserve. It is custom alone which engages animals from every object that strikes their senses to infer its usual attendant, and carries their imagination from the appearance of the one to conceive the other in that particular manner which we denominate *belief*. No other explication can be given of this operation in all the higher as well as lower classes of sensitive beings which fall under our notice and observation.¹

¹ Since all reasoning concerning facts or causes is derived merely from custom, it may be asked how it happens that men so much surpass animals in reasoning, and one man so much surpasses another? Has not the same custom the same influence on all? We shall here endeavour briefly to explain the great difference in human understandings, after which the reason of the difference between men and animals will easily be comprehended. 1. When we have lived any time, and have been accustomed to the uniformity of nature, we acquire a general habit by which we always transfer the known to the unknown, and conceive the latter to resemble the former. By means of this general habitual principle we regard even one experiment as the foundation of reasoning, and expect a similar event with some degree of certainty where the experiment has been made accurately and free from all foreign circum-

stances. But, though animals learn many parts of their knowledge from observation, there are also many parts of it which they derive from the original hand of nature, which much exceed the share of capacity they possess on ordinary occasions, and in which they improve little or nothing, by the longest practice and experience. These we denominate instincts, and are so apt to admire as something very extraordinary, and inexplicable by all the disquisitions of human understanding. But our wonder will, perhaps, cease or diminish when we consider that the experimental reasoning itself which we possess in common with beasts, and on which the whole conduct of life depends, is nothing but a species of instinct or mechanical power that acts in us unknown to ourselves; and in its chief operations is not directed by any such relations or comparisons of ideas as are the proper objects of our intellectual faculties. Though the instinct be different, yet still it is an instinct which teaches a man to avoid the fire, as much as that which teaches a bird with such exactness the art of incubation and the whole economy and order of its nursery.

stances. It is therefore considered as a matter of great importance to observe the consequences of things; and as one man may very much surpass another in attention and memory and observation, this will make a very great difference in their reasoning. 2. Where there is a complication of causes, to produce any effect one mind may be much larger than another, and better able to comprehend the whole system of objects and to infer justly their consequences. 3. One man is able to carry on a chain of consequences to a greater length than another. 4. Few men can think long without running into a confusion of ideas and mistaking one for another; and there are various degrees of this infirmity. 5. The circumstance on which the effect depends is frequently involved in other circumstances which are foreign and extrinsic. The separation of it often requires great attention, accuracy, and subtlety. 6. The forming of general maxims from particular observation is a very nice operation, and nothing is more usual, from haste or narrowness of mind which sees not on all sides, than to commit mistakes in this particular. 7. When we reason from analogies the man who has the greater experience or the greater promptitude of suggesting analogies will be the better reasoner. 8. Biases from prejudice, education, passion, party, etc., hang more upon one mind than another. 9. After we have acquired a confidence in human testimony, books and conversation enlarge much more the sphere of one man's experience and thought than those of another. It would be easy to discover many other circumstances that make a difference in the understandings of men.

SECTION X.

OF MIRACLES

PART I.

THERE is in Dr. Tillotson's writings an argument against the *real presence*, which is as concise and elegant and strong as any argument can possibly be supposed against a doctrine so little worthy of a serious refutation. It is acknowledged on all hands, says that learned prelate, that the authority either of the Scripture or of tradition is founded merely in the testimony of the Apostles, who were eye-witnesses to those miracles of our Saviour by which he proved his divine mission. Our evidence, then, for the truth of the Christian religion is less than the evidence for the truth of our senses; because, even in the first authors of our religion, it was no greater, and it is evident it must diminish in passing from them to their disciples; nor can anyone rest such confidence in their testimony as in the immediate object of his senses. But a weaker evidence can never destroy a stronger, and therefore, were the doctrine of the *real presence* ever so clearly revealed in Scripture, it were directly contrary to the rules of just reasoning to give our assent to it. It contradicts sense, though both the Scripture and tradition on which it is supposed to be built carry not such evidence with them as sense when they are considered merely as external evidences, and are not brought home to everyone's breast by the immediate operation of the Holy Spirit.

Nothing is so convenient as a decisive argument of this kind, which must at least *silence* the most arrogant bigotry and superstition, and free us from their impertinent solicitations. I flatter myself that I have discovered an argument of a like nature, which, if just, will, with the wise and learned, be an everlasting check to all kinds of superstitious delusion, and consequently will be useful as long as the world endures. For so long, I presume, will the accounts of miracles and prodigies be found in all history, sacred and profane.

Though experience be our only guide in reasoning concerning matters of fact, it must be acknowledged that this guide is not altogether infallible, but in some cases is apt to lead us into errors. One who in our climate should expect better weather in any week of June than in one of December would reason justly and conformably to experience; but it is certain that he may happen in the event to find himself mistaken. However, we may observe that in such a case he would have no cause to complain of experience, because it commonly informs us beforehand of the uncertainty, by that contrariety of events which we may learn from a diligent observation. All effects follow not with like certainty from their supposed causes. Some events are found in all countries and all ages to have been constantly conjoined together. Others are found to have been more variable, and sometimes to disappoint our expectations; so that, in our reasonings concerning matter of fact, there are all imaginable degrees of assurance, from the highest certainty to the lowest species of moral evidence.

A wise man, therefore, proportions his belief to the evidence. In such conclusions as are founded on an infallible experience he expects the event with the last degree of assurance, and regards his past experience as a full *proof* of the future existence of that event. In other cases he proceeds with more caution. He weighs the opposite experiments. He considers which side is supported by the greater number of experiments; to that side he inclines with doubt and hesitation, and when at last he fixes his judgment the evidence exceeds not what we properly call *probability*. All probability, then, supposes an opposition of experiments and observations, where the one side is found to overbalance the other, and to produce a degree of evidence proportioned to the superiority. A hundred instances or experiments on one side and fifty on another afford a doubtful

expectation of any event; though a hundred uniform experiments, with only one that is contradictory, reasonably begets a pretty strong degree of assurance. In all cases we must balance the opposite experiments, where they are opposite, and deduct the smaller number from the greater in order to know the exact force of the superior evidence.

To apply these principles to a particular instance, we may observe that there is no species of reasoning more common, more useful, and even necessary to human life, than that which is derived from the testimony of men and the reports of eye-witnesses and spectators. This species of reasoning, perhaps, one may deny to be founded on the relation of cause and effect. I shall not dispute about a word. It will be sufficient to observe that our assurance in any argument of this kind is derived from no other principle than our observation of the veracity of human testimony, and of the usual conformity of facts to the reports of witnesses. It being a general maxim that no objects have any discoverable connection together, and that all the inferences which we can draw from one to another are founded merely on our experience of their constant and regular conjunction, it is evident that we ought not to make an exception to this maxim in favour of human testimony, whose connection with any event seems in itself as little necessary as any other. Were not the memory tenacious to a certain degree; had not men commonly an inclination to truth and a principle of probity; were they not sensible to shame when detected in a falsehood—were not these, I say, discovered by *experience* to be qualities inherent in human nature, we should never repose the least confidence in human testimony. A man delirious or noted for falsehood and villainy has no manner of authority with us.

And as the evidence derived from witnesses and human testimony is founded on past experience, so it varies with the experience, and is regarded either as *proof* or a *probability*, according as the conjunction between any particular kind of report and any kind of object has been found to be constant or variable. There are a number of circumstances to be taken into consideration in all judgments of this kind, and the ultimate standard by which we determine all disputes that may arise concerning them is always derived from experience and observation. Where

this experience is not entirely uniform on any side, it is attended with an unavoidable contrariety in our judgments, and with the same opposition and mutual destruction of argument as in every other kind of evidence. We frequently hesitate concerning the reports of others. We balance the opposite circumstances which cause any doubt or uncertainty, and when we discover a superiority on one side we incline to it, but still with a diminution of assurance in proportion to the force of its antagonist.

This contrariety of evidence in the present case may be derived from several different causes: from the opposition of contrary testimony; from the character or number of the witnesses; from the manner of their delivering their testimony; or from the union of all these circumstances. We entertain a suspicion concerning any matter of fact when the witnesses contradict each other; when they are but few or of a doubtful character; when they have an interest in what they affirm; when they deliver their testimony with hesitation, or, on the contrary, with too violent asseverations. There are many other particulars of the same kind which may diminish or destroy the force of any argument derived from human testimony.

Suppose, for instance, that the fact which the testimony endeavours to establish partakes of the extraordinary and the marvellous; in that case, the evidence resulting from the testimony admits of a diminution, greater or less, in proportion as the fact is more or less unusual. The reason why we place any credit in witnesses and historians is not derived from any connection which we perceive *a priori* between testimony and reality, but because we are accustomed to find a conformity between them. But when the fact attested is such a one as has seldom fallen under our observation, here is a contest of two opposite experiences, of which the one destroys the other as far as its force goes, and the superior can only operate on the mind by the force which remains. The very same principle of experience which gives us a certain degree of assurance in the testimony of witnesses gives us also, in this case, another degree of assurance against the fact which they endeavour to establish, from which contradiction there necessarily arises a counterpoise, and mutual destruction of belief and authority.

I should not believe such a story were it told me by Cato was a proverbial saying in Rome, even during the lifetime of that philosophical patriot.¹ The incredibility of a fact, it was allowed, might invalidate so great an authority.

The Indian prince who refused to believe the first relations concerning the effects of frost reasoned justly, and it naturally required very strong testimony to engage his assent to facts that arose from a state of nature with which he was unacquainted, and which bore so little analogy to those events of which he had had constant and uniform experience. Though they were not contrary to his experience, they were not conformable to it.²

But in order to increase the probability against the testimony of witnesses, let us suppose that the fact which they affirm, instead of being only marvellous, is really miraculous; and suppose also that the testimony, considered apart and in itself, amounts to an entire proof—in that case there is proof against proof, of which the strongest must prevail, but still with a diminution of its force in proportion to that of its antagonist.

A miracle is a violation of the laws of nature; and as a firm and unalterable experience has established these laws, the proof against a miracle, from the very nature of the fact, is as entire as any argument from experience can possibly be imagined. Why is it more than probable that all men must die; that lead cannot of itself remain suspended in the air; that fire consumes wood, and is extinguished

by water; unless it be that these events are found agreeable to the laws of nature, and there is required a violation of these laws, or, in other words, a miracle, to prevent them? Nothing is esteemed a miracle if it ever happen in the common course of nature. It is no miracle that a man seemingly in good health should die on a sudden, because such a kind of death, though more unusual than any other, has yet been frequently observed to happen. But it is a miracle that a dead man should come to life, because that has never been observed in any age or country. There must, therefore, be a uniform experience against every miraculous event, otherwise the event would not merit that appellation. And as a uniform experience amounts to a proof, there is here a direct and full proof, from the nature of the fact, against the existence of any miracle; nor can such a proof be destroyed, or the miracle rendered credible, but by an opposite proof which is superior.³

The plain consequence is (and it is a general maxim worthy of our attention) "that no testimony is sufficient to establish a miracle unless the testimony be of such a kind that its falsehood would be more miraculous than the fact which it endeavours to establish; and even in that case there is a mutual destruction of arguments, and the superior only gives us an assurance suitable to that degree of force which remains after deducting the inferior." When anyone tells me that he saw a dead man restored to life I immediately consider with myself whether it be

¹ Plutarch, in *Vita Catois*.

² No Indian, it is evident, could have experience that water did not freeze in cold climates. This is placing nature in a situation quite unknown to him, and it is impossible for him to tell *a priori* what will result from it. It is making a new experiment, the consequence of which is always uncertain. One may sometimes conjecture from analogy what will follow; but, still, this is but conjecture. And it must be confessed that in the present case of freezing the event follows contrary to the rules of analogy, and is such as a rational Indian would not look for. The operations of cold upon water are not gradual according to the degrees of cold, but whenever it comes to the freezing-point the water passes in a moment from the utmost liquidity to perfect hardness. Such an event, therefore, may be denominated *extraordinary*, and requires a pretty strong testimony to render it credible to people in a warm climate. But, still, it is not *miraculous*, nor contrary to uniform experience of the course of nature in cases where all the circumstances are the same. The inhabitants of Sumatra have always seen water fluid in their own climate, and the freezing of their rivers ought to be deemed a prodigy. But they never saw water in Muscovy during the winter, and therefore they cannot reasonably be positive what would there be the conse-

³ Sometimes an event may not, *in itself*, seem to be contrary to the laws of nature, and yet, if it were real, it might, by reason of some circumstances, be denominated a miracle, because, *in fact*, it is contrary to these laws. Thus if a person claiming a divine authority should command a sick person to be well, a healthful man to fall down dead, the clouds to pour rain, the winds to blow—in short, should order many natural events which immediately follow upon his command, these might justly be esteemed miracles, because they are really in this case contrary to the laws of nature. For, if any suspicion remain that the event and command concurred by accident, there is no miracle and no transgression of the laws of nature. If this suspicion be removed, there is evidently a miracle, and a transgression of these laws, because nothing can be more contrary to nature than that the voice or command of a man should have such an influence. A miracle may be accurately defined, a *transgression of a law of nature by a particular volition of the Deity, or by the interposition of some invisible agent*. A miracle may either be discoverable by men or not. This alters not its nature and essence. The raising of a house or ship into the air is a visible miracle. The raising of a feather when the wind wants ever so little of a force requisite for that purpose is as real a miracle, though not so sensible with regard to us.

more probable that this person should either deceive or be deceived, or that the fact which he relates should really have happened. I weigh the one miracle against the other, and according to the superiority which I discover I pronounce my decision, and always reject the greater miracle. If the falsehood of his testimony would be more miraculous than the event which he relates, then, and not till then, can he pretend to command my belief or opinion.

PART II.

In the foregoing reasoning we have supposed that the testimony upon which a miracle is founded may possibly amount to an entire proof, and that the falsehood of that testimony would be a real prodigy. But it is easy to show that we have been a great deal too liberal in our concession, and that there never was a miraculous event established on so full an evidence.

For, *first*, there is not to be found in all history any miracle attested by a sufficient number of men of such unquestioned good sense, education, and learning as to secure us against all delusion in themselves; of such undoubted integrity as to place them beyond all suspicion of any design to deceive others; of such credit and reputation in the eyes of mankind as to have a great deal to lose in case of their being detected in any falsehood, and at the same time attesting facts performed in such a public manner and in so celebrated a part of the world as to render the detection unavoidable--all which circumstances are requisite to give us a full assurance in the testimony of men.

Secondly, we may observe in human nature a principle which, if strictly examined, will be found to diminish extremely the assurance which we might from human testimony have in any kind of prodigy. The maxim by which we commonly conduct ourselves in our reasonings is that the objects of which we have no experience resemble those of which we have; that what we have found to be most usual is always most probable; and that where there is an opposition of arguments we ought to give the preference to such as are founded on the greatest number of past observations. But though, in proceeding by this rule, we readily reject any fact which is unusual and incredible in an ordinary degree, yet, in advancing farther, the

mind observes not always the same rule; but when anything is affirmed utterly absurd and miraculous it rather the more readily admits of such a fact upon account of that very circumstance which ought to destroy all its authority. The passion of *surprise* and *wonder* arising from miracles, being an agreeable emotion, gives a sensible tendency towards the belief of those events from which it is derived. And this goes so far that even those who cannot enjoy this pleasure immediately, nor can believe those miraculous events of which they are informed, yet love to partake of the satisfaction at second hand or by rebound, and place a pride and delight in exciting the admiration of others.

With what greediness are the miraculous accounts of travellers received, their descriptions of sea and land monsters, their relations of wonderful adventures, strange men and uncouth manners! But if the spirit of religion join itself to the love of wonder there is an end of common sense, and human testimony, in these circumstances, loses all pretensions to authority. A religionist may be an enthusiast, and imagine he sees what has no reality: he may know his narrative to be false, and yet persevere in it, with the best intentions in the world, for the sake of promoting so holy a cause; or even where this delusion has not place, vanity, excited by so strong a temptation, operates on him more powerfully than on the rest of mankind in any other circumstances, and self-interest with equal force. His auditors may not have, and commonly have not, sufficient judgment to canvass his evidence; what judgment they have they renounce by principle in these sublime and mysterious subjects; or if they were ever so willing to employ it, passion and a heated imagination disturb the regularity of its operations. Their credulity increases his impudence, and his impudence overpowers their credulity.

Eloquence, when at its highest pitch, leaves little room for reason or reflection, but, addressing itself entirely to the fancy or the affections, captivates the willing hearers and subdues their understanding. Happily, this pitch it seldom attains. But what a Tully or a Demosthenes could scarcely effect over a Roman or Athenian audience, every *Capuchin*, every itinerant or stationary teacher, can perform over the generality of mankind, and in a higher degree, by touching such gross and vulgar passions.

The many instances of forged miracles and prophecies and supernatural events which in all ages have either been detected by contrary evidence, or which detect themselves by their absurdity, prove sufficiently the strong propensity of mankind to the extraordinary and the marvellous, and ought reasonably to beget a suspicion against all relations of this kind. This is our natural way of thinking, even with regard to the most common and most credible events. For instance, there is no kind of report which rises so easily and spreads so quickly, especially in country places and provincial towns, as those concerning marriages, insomuch that two young persons of equal condition never see each other twice but the whole neighbourhood immediately join them together. The pleasure of telling a piece of news so interesting, of propagating it, and of being the first reporters of it, spreads the intelligence. And this is so well known that no man of sense gives attention to these reports till he find them confirmed by some greater evidence. Do not the same passions, and others still stronger, incline the generality of mankind to believe and report, with the greatest vehemence and assurance, all religious miracles?

Thirdly, it forms a strong presumption against all supernatural and miraculous relations that they are observed chiefly to abound among ignorant and barbarous nations; or, if a civilised people has ever given admission to any of them, that people will be found to have received them from ignorant and barbarous ancestors, who transmitted them with that inviolable sanction and authority which always attend received opinions. When we peruse the first histories of all nations, we are apt to imagine ourselves transported into some new world, where the whole frame of nature is disjointed, and every element performs its operations in a different manner from what it does at present. Battles, revolutions, pestilence, famine, and death are never the effect of those natural causes which we experience. Prodiges, omens, oracles, judgments, quite obscure the few natural events that are intermingled with them. But as the former grow thinner every page, in proportion as we advance nearer the enlightened ages, we soon learn that there is nothing mysterious or supernatural in the case, but that all proceeds from the

usual propensity of mankind towards the marvellous, and that, though this inclination may at intervals receive a check from sense and learning, it can never be thoroughly extirpated from human nature.

It is strange, a judicious reader is apt to say upon the perusal of these wonderful historians, *that such prodigious events never happen in our days*. But it is nothing strange, I hope, that men should lie in all ages. You must surely have seen instances enough of that frailty. You have yourself heard many such marvellous relations started, which, being treated with scorn by all the wise and judicious, have at last been abandoned even by the vulgar. Be assured that those renowned lies, which have spread and flourished to such a monstrous height, arose from like beginnings; but, being sown in a more proper soil, shot up at last into prodigies almost equal to those which they relate.

It was a wise policy in that false prophet Alexander—who, though now forgotten, was once so famous—to lay the first scene of his impostures in Paphlagonia, where, as Lucian tells us, the people were extremely ignorant and stupid, and ready to swallow even the grossest delusion. People at a distance, who are weak enough to think the matter at all worth inquiry, have no opportunity of receiving better information. The stories come magnified to them by a hundred circumstances. Fools are industrious in propagating the imposture; while the wise and learned are contented, in general, to deride its absurdity, without informing themselves of the particular facts by which it may be distinctly refuted. And thus the impostor above mentioned was enabled to proceed, from his ignorant Paphlagonians, to the enlisting of votaries even among the Grecian philosophers, and men of the most eminent rank and distinction in Rome—nay, could engage the attention of that sage emperor Marcus Aurelius, so far as to make him trust the success of a military expedition to his delusive prophecies.

The advantages are so great of starting an imposture among an ignorant people that, even though the delusion should be too gross to impose on the generality of them (*which, though seldom, is sometimes the case*), it has a much better chance for succeeding in remote countries than if the first scene had been laid in a city renowned

for arts and knowledge. The most ignorant and barbarous of these barbarians carry the report abroad. None of their countrymen have a large correspondence, or sufficient credit and authority to contradict and beat down the delusion. Men's inclination to the marvellous has full opportunity to display itself. And thus a story which is universally exploded in the place where it was first started shall pass for certain at a thousand miles distance. But had Alexander fixed his residence at Athens, the philosophers of that renowned mart of learning had immediately spread throughout the whole Roman Empire their sense of the matter, which, being supported by so great authority, and displayed by all the force of reason and eloquence, had entirely opened the eyes of mankind. It is true Lucian, passing by chance through Paphlagonia, had an opportunity of performing this good office. But, though much to be wished, it does not always happen that every Alexander meets with a Lucian ready to expose and detect his impostures.

I may add as a *fourth* reason which diminishes the authority of prodigies, that there is no testimony for any, even those which have not been expressly detected, that is not opposed by an infinite number of witnesses, so that not only the miracle destroys the credit of testimony, but the testimony destroys itself. To make this the better understood, let us consider that in matters of religion whatever is different is contrary, and that it is impossible the religions of ancient Rome, of Turkey, of Siam, and of China should, all of them, be established on any solid foundation. Every miracle, therefore, pretended to have been wrought in any of these religions (and all of them abound in miracles), as its direct scope is to establish the particular system to which it is attributed, so has it the same force, though more indirectly, to overthrow every other system. In destroying a rival system it likewise destroys the credit of those miracles on which that system was established, so that all the prodigies of different religions are to be regarded as contrary facts, and the evidences of these prodigies, whether weak or strong, as opposite to each other. According to this method of reasoning, when we believe any miracle of Mohammed or his successors we have for our warrant the testimony of a few barbarous Arabians. And, on the other hand, we are to regard

the authority of Titus Livius, Plutarch, Tacitus, and, in short, of all the authors and witnesses, Grecian, Chinese, and Roman Catholic, who have related any miracle in their particular religion—I say, we are to regard their testimony in the same light as if they had mentioned that Mohammedan miracle, and had in express terms contradicted it with the same certainty as they have for the miracle they relate. This argument may appear over-subtle and refined, but is not in reality different from the reasoning of a judge who supposes that the credit of two witnesses, maintaining a crime against anyone, is destroyed by the testimony of two others, who affirm him to have been two hundred leagues distant at the same instant when the crime is said to have been committed.

One of the best attested miracles in all profane history is that which Tacitus reports of Vespasian, who cured a blind man in Alexandria by means of his spittle, and a lame man by the mere touch of his foot, in obedience to a vision of the god Serapis, who had enjoined them to have recourse to the emperor for these miraculous cures. The story may be seen in that fine historian,* where every circumstance seems to add weight to the testimony, and might be displayed at large with all the force of argument and eloquence if anyone were now concerned to enforce the evidence of that exploded and idolatrous superstition: the gravity, solidity, age, and probity of so great an emperor, who, through the whole course of his life, conversed in a familiar manner with his friends and courtiers, and never affected those extraordinary airs of divinity assumed by Alexander and Demetrius; the historian, a contemporary writer, noted for candour and veracity, and withal the greatest and most penetrating genius, perhaps, of all antiquity, and so free from any tendency to credulity that he even lies under the contrary imputation of Atheism and profaneness; the persons from whose authority he related the miracle, of established character for judgment and veracity, as we may well presume, eye-witnesses of the fact, and confirming their testimony after the Flavian family was despoiled of the empire, and could no longer give any reward as the price of a lie. *Utrumque, qui interfuere, nunc quoque*

* *Hist.*, lib. v., cap. 8. Suetonius gives nearly the same account in *Vita Vesp.*

memorant, postquam nullum mendacio pretium. To which if we add the public nature of the facts as related, it will appear that no evidence can well be supposed stronger for so gross and so palpable a falsehood.

There is also a memorable story related by Cardinal de Retz, which may well deserve our consideration. When that intriguing politician fled into Spain to avoid the persecution of his enemies he passed through Saragossa, the capital of Arragon, where he was shown, in the cathedral, a man who had served seven years as a doorkeeper, and was well known to everybody in town that had ever paid his devotions at that church. He had been seen for so long a time wanting a leg, but recovered that limb by the rubbing of holy oil upon the stump; and the cardinal assures us that he saw him with two legs. This miracle was vouched by all the canons of the church, and the whole company in town were appealed to for a confirmation of the fact, whom the cardinal found by their zealous devotion to be thorough believers of the miracle. Here the relater was also contemporary to the supposed prodigy; of an incredulous and libertine character, as well as of great genius; the miracle of so *singular* a nature as could scarcely admit of a counterfeit, and the witnesses very numerous, and all of them in a manner spectators of the fact to which they gave their testimony. And what adds mightily to the force of the evidence, and may double our surprise on this occasion, is that the cardinal himself, who relates the story, seems not to give any credit to it, and consequently cannot be suspected of any concurrence in the holy fraud. He considered justly that it was not requisite in order to reject a fact of this nature to be able accurately to disprove the testimony, and to trace its falsehood through all the circumstances of knavery and credulity which produced it. He knew that, as this was commonly altogether impossible at any small distance of time and place, so was it extremely difficult even where one was immediately present, by reason of the bigotry, ignorance, cunning, and roguery of a great part of mankind. He therefore concluded, like a just reasoner, that such an evidence carried falsehood upon the very face of it, and that a miracle supported by any human testimony was more properly a subject of derision than of argument.

There surely never was a greater num-

ber of miracles ascribed to one person than those which were lately said to have been wrought in France upon the tomb of Abbé Paris, the famous Jansenist, with whose sanctity the people were so long deluded. The curing of the sick, giving hearing to the deaf and sight to the blind were everywhere talked of as the usual effects of that holy sepulchre. But, what is more extraordinary, many of the miracles were immediately proved upon the spot before judges of unquestioned integrity, attested by witnesses of credit and distinction, in a learned age, and on the most eminent theatre that is now in the world. Nor is this all; a relation of them was published and dispersed everywhere, nor were the Jesuits, though a learned body, supported by the civil magistrate, and determined enemies to those opinions in whose favour the miracles were said to have been wrought, ever able distinctly to refute or detect them. Where shall we find such a number of circumstances agreeing to the corroboration of one fact? And what have we to oppose to such a cloud of witnesses but the absolute impossibility or miraculous nature of the events which they relate? And this surely, in the eyes of all reasonable people, will alone be regarded as a sufficient refutation.

Is the consequence just, because some human testimony has the utmost force and authority in some cases—when it relates the battle of Philippi or Pharsalia, for instance—that therefore all kinds of testimony must in all cases have equal force and authority? Suppose that the Cæsarean and Pompeian factions had, each of them, claimed the victory in these battles, and that the historians of each party had uniformly ascribed the advantage to their own side, how could mankind at this distance have been able to determine between them? The contrariety is equally strong between the miracles related by Herodotus or Plutarch and those delivered by Mariana, Bede, or any monkish historian.

The wise lend a very academic faith to every report which favours the passion of the reporter; whether it magnifies his country, his family, or himself, or in any other way strikes in with his natural inclinations and propensities. But what greater temptation than to appear a missionary, a prophet, an ambassador from heaven? Who would not encounter many dangers and difficulties in order to

attain so sublime a character? Or if, by the help of vanity and a heated imagination, a man has first made a convert of himself and entered seriously into the delusion, who ever scruples to make use of pious frauds in support of so holy and meritorious a cause?

The smallest spark may here kindle into the greatest flame, because the materials are always prepared for it.

The *avidum genus auricularum*,² the gazing populace, receive greedily, without examination, whatever soothes superstition and promotes wonder.

How many stories of this nature have in all ages been detected and exploded in their infancy? How many more have been celebrated for a time, and have afterwards sunk into neglect and oblivion? Where such reports, therefore, fly about, the solution of the phenomenon is obvious, and we judge in conformity to regular experience and observation when we account for it by the known and natural principles of credulity and delusion. And shall we, rather than have recourse to so natural a solution, allow of a miraculous violation of the most established laws of nature?

I need not mention the difficulty of detecting a falsehood in any private or even public history, at the place where it is said to happen, much more when the scene is removed to ever so small a distance. Even a court of judicature, with all the authority, accuracy, and judgment which they can employ, find themselves often at a loss to distinguish between truth and falsehood in the most recent actions. But the matter never comes to any issue if trusted to the common method of alterations and debate and flying rumours, especially when men's passions have taken part on either side.

In the infancy of new religions the wise and learned commonly esteem the matter too inconsiderable to deserve their attention or regard. And when afterwards they would willingly detect the cheat, in order to undeceive the deluded multitude, the season is now past, and the records and witnesses which might clear up the matter have perished beyond recovery.

No means of detection remain but those which must be drawn from the very testimony itself of the reporters; and these, though always sufficient with the judicious

and knowing, are commonly too fine to fall under the comprehension of the vulgar.

Upon the whole, then, it appears that no testimony for any kind of miracle has ever amounted to a probability, much less to a proof; and that, even supposing it amounted to a proof, it would be opposed by another proof derived from the very nature of the fact which it would endeavour to establish. It is experience only which gives authority to human testimony, and it is the same experience which assures us of the laws of nature. When, therefore, these two kinds of experience are contrary, we have nothing to do but subtract the one from the other and embrace an opinion, either on one side or the other, with that assurance which arises from the remainder. But, according to the principle here explained, this subtraction, with regard to all popular religions, amounts to an entire annihilation; and therefore we may establish it as a maxim that no human testimony can have such force as to prove a miracle and make it a just foundation for any such system of religion.

I beg the limitations here made may be remarked, when I say that a miracle can never be proved so as to be the foundation of a system of religion. For I own that, otherwise, there may possibly be miracles, or violations of the usual course of nature, of such a kind as to admit of proof from human testimony; though, perhaps, it will be impossible to find any such in all the records of history. Thus, suppose all authors, in all languages, agree that from January 1st, 1600, there was a total darkness over the whole earth for eight days; suppose that the tradition of this extraordinary event is still strong and lively among the people; that all travellers who return from foreign countries bring us accounts of the same tradition, without the least variation or contradiction, it is evident that our present philosophers, instead of doubting the fact, ought to receive it as certain, and ought to search for the causes whence it might be derived. The decay, corruption, and dissolution of nature is an event rendered probable by so many analogies that any phenomenon which seems to have a tendency towards that catastrophe comes within the reach of human testimony, if that testimony be very extensive and uniform.

But suppose that all the historians who treat of England should agree that on

² Lucrēt.

January 1st, 1600, Queen Elizabeth died ; that both before and after her death she was seen by her physicians and the whole court, as is usual with persons of her rank ; that her successor was acknowledged and proclaimed by the Parliament ; and that, after being interred a month, she again appeared, resumed the throne, and governed England for three years ; I must confess that I should be surprised at the concurrence of so many odd circumstances, but should not have the least inclination to believe so miraculous an event. I should not doubt of her pretended death, and of those other public circumstances that followed it ; I should only assert it to have been pretended, and that it neither was, nor possibly could be, real. You would in vain object to me the difficulty and almost impossibility of deceiving the world in an affair of such consequence ; the wisdom and solid judgment of that renowned queen ; with the little or no advantage which she could reap from so poor an artifice. All this might astonish me ; but I would still reply that the knavery and folly of men are such common phenomena that I should rather believe the most extraordinary events to arise from their concurrence than admit of so signal a violation of the laws of nature.

But, should this miracle be ascribed to any new system of religion, men in all ages have been so much imposed on by ridiculous stories of that kind that this very circumstance would be a full proof of a cheat, and sufficient, with all men of sense, not only to make them reject the fact, but even reject it without further examination. Though the Being to whom the miracle is ascribed be, in this case, Almighty, it does not, upon that account, become a whit more probable, since it is impossible for us to know the attributes or actions of such a Being otherwise than from the experience which we have of his productions in the usual course of nature. This still reduces us to past observation, and obliges us to compare the instances of the violation of truth in the testimony of men with those of the violation of the laws of nature by miracles, in order to judge which of them is most likely and probable. As the violations of truth are more common in the testimony concerning religious miracles than in that concerning any other matter of fact, this must diminish very much the authority of the former testimony, and

make us form a general resolution never to lend any attention to it, with whatever specious pretence it may be covered.

Lord Bacon seems to have embraced the same principles of reasoning. "We ought," says he, "to make a collection or particular history of all monsters and prodigious births or productions, and, in a word, of everything new, rare, and extraordinary in nature. But this must be done with the most severe scrutiny, lest we depart from truth. Above all, every relation must be considered as suspicious which depends in any degree upon religion, as the prodigies of Livy ; and, no less so, everything that is to be found in the writers of natural magic or alchemy, or such authors, who seem, all of them, to have an unconquerable appetite for falsehood and fable."

I am the better pleased with the method of reasoning here delivered, as I think it may serve to confound those dangerous friends or disguised enemies to the Christian religion, who have undertaken to defend it by the principles of human reason. Our most holy religion is founded on *faith*, not on reason ; and it is a sure method of exposing it to put it to such a trial as it is by no means fitted to endure. To make this more evident, let us examine those miracles related in Scripture, and, not to lose ourselves in too wide a field, let us confine ourselves to such as we find in the Pentateuch, which we shall examine, according to the principles of these pretended Christians, not as the word or testimony of God himself, but as the production of a mere human writer and historian. Here, then, we are first to consider a book, presented to us by a barbarous and ignorant people, written in an age when they were still more barbarous, and in all probability long after the facts which it relates, corroborated by no concurring testimony, and resembling those fabulous accounts which every nation gives of its origin. Upon reading this book we find it full of prodigies and miracles. It gives an account of a state of the world and of human nature entirely different from the present ; of our fall from that state ; of the age of man extended to near a thousand years ; of the destruction of the world by a deluge ; of the arbitrary choice of one people as the favourites of heaven, and that people the countrymen of the author ; of their deliverance from bondage

by prodigies the most astonishing imaginable. I desire anyone to lay his hand upon his heart, and, after a serious consideration, declare whether he thinks that the falsehood of such a book, supported by such a testimony, would be more extraordinary and miraculous than all the miracles it relates, which is, however, necessary to make it be received according to the measures of probability above established.

What we have said of miracles may be applied, without any variation, to prophecies; and, indeed, all prophecies are real miracles, and as such only can be admitted as proofs of any revelation. If it did not exceed the capacity of human nature to

foretell future events, it would be absurd to employ any prophecy as an argument for a divine mission or authority from heaven. So that, upon the whole, we may conclude that the Christian religion not only was at first attended with miracles, but even at this day cannot be believed by any reasonable person without one. Mere reason is insufficient to convince us of its veracity. And whoever is moved by *faith* to assent to it is conscious of a continued miracle in his own person, which subverts all the principles of his understanding, and gives him a determination to believe what is most contrary to custom and experience.

SECTION XI.

OF A PARTICULAR PROVIDENCE AND OF A FUTURE STATE

I was lately engaged in conversation with a friend who loves sceptical paradoxes; where, though he advanced many principles of which I can by no means approve, yet, as they seem to be curious and to bear some relation to the chain of reasoning carried on throughout this inquiry, I shall here copy them from my memory as accurately as I can, in order to submit them to the judgment of the reader.

Our conversation began with my admiring the singular good fortune of philosophy, which, as it requires entire liberty above all other privileges, and chiefly flourishes from the free opposition of sentiments and argumentation, received its first birth in an age and country of freedom and toleration, and was never cramped, even in its most extravagant principles, by any creeds, concessions, or penal statutes. For, except the banishment of Protagoras and the death of Socrates, which last event proceeded partly from other motives, there are scarcely any instances to be met with in ancient

history of this bigoted jealousy with which the present age is so much infested. Epicurus lived at Athens to an advanced age in peace and tranquillity; Epicureans¹ were even admitted to receive the sacerdotal character, and to officiate at the altar in the most sacred rites of the established religion. And the public encouragement² of pensions and salaries was afforded equally, by the wisest of all the Roman emperors,³ to the professors of every sect of philosophy. How requisite such kind of treatment was to philosophy in her early youth will easily be conceived if we reflect that even at present, when she may be supposed more hardy and robust, she bears with much difficulty the inclemency of the seasons, and those harsh winds of calumny and persecution which blow upon her.

You admire, says my friend, as the singular good fortune of philosophy what

¹ Luciani στυμ. ἡ Λατρίαι.

² Luciani εὐροχός.

³ Luciani and Dio.

seems to result from the natural course of things, and to be unavoidable in every age and nation. This pertinacious bigotry, of which you complain as so fatal to philosophy, is really her offspring, who, after allying with superstition, separates himself entirely from the interest of his parent, and becomes her most inveterate enemy and persecutor. Speculative dogmas of religion, the present occasions of such furious dispute, could not possibly be conceived or admitted in the early ages of the world, when mankind, being wholly illiterate, formed an idea of religion more suitable to their weak apprehension, and composed their tenets of such tales chiefly as were the objects of traditional belief more than of argument or disputation. After the first alarm, therefore, was over, which arose from the new paradoxes and principles of the philosophers, these teachers seem ever after, during the ages of antiquity, to have lived in great harmony with the established superstition, and to have made a fair partition of mankind between them—the former claiming all the learned and wise, the latter possessing all the vulgar and illiterate.

It seems then, say I, that you leave politics entirely out of the question, and never suppose that a wise magistrate can justly be jealous of certain tenets of philosophy, such as those of Epicurus, which, denying a divine existence, and consequently a providence and a future state, seem to loosen in a great measure the ties of morality, and may be supposed for that reason pernicious to the peace of civil society.

I know, replied he, that in fact these persecutions never in any age proceeded from calm reason, or from experience of the pernicious consequences of philosophy, but arose entirely from passion and prejudice. But what if I should advance farther and assert that, if Epicurus had been accused before the people by any of the *sycophants* or informers of those days, he could easily have defended his cause and proved his principles of philosophy to be as salutary as those of his adversaries, who endeavoured with such zeal to expose him to the public hatred and jealousy?

I wish, said I, you would try your eloquence upon so extraordinary a topic, and make a speech for Epicurus which might satisfy, not the mob of Athens, if you will allow that ancient and polite city to have contained any mob, but the more

philosophical part of his audience, such as might be supposed capable of comprehending his arguments.

The matter would not be difficult upon such conditions, replied he. And, if you please, I shall suppose myself Epicurus for a moment, and make you stand for the Athenian people, and shall deliver you such an harangue as will fill all the urn with white beans, and leave not a black one to gratify the malice of my adversaries.

Very well; pray proceed upon these suppositions.

I come hither, O ye Athenians, to justify in your assembly what I maintained in my school, and I find myself impeached by furious antagonists instead of reasoning with calm and dispassionate inquirers. Your deliberations, which of right should be directed to questions of public good and the interest of the commonwealth, are diverted to the disquisitions of speculative philosophy; and these magnificent but perhaps fruitless inquiries take place of your more familiar but more useful occupations. But so far as in me lies I will prevent this abuse. We shall not here dispute concerning the origin and government of worlds. We shall only inquire how far such questions concern the public interest. And if I can persuade you that they are entirely indifferent to the peace of society and security of government, I hope that you will presently send us back to our schools, there to examine at leisure the question the most sublime, but at the same time the most speculative of all philosophy.

The religious philosophers, not satisfied with the tradition of your forefathers and doctrine of your priests (in which I willingly acquiesce), indulge a rash curiosity in trying how far they can establish religion upon the principles of reason, and they thereby excite, instead of satisfying, the doubts which naturally arise from a diligent and scrupulous inquiry. They paint in the most magnificent colours the order, beauty, and wise arrangement of the universe; and then ask if such a glorious display of intelligence could proceed from the fortuitous concurrence of atoms, or if chance could produce what the greatest genius can never sufficiently admire. I shall not examine the justness of this argument. I shall allow it to be as solid as my antagonists and accusers can desire. It is sufficient if I can prove from this very

reasoning that the question is entirely speculative, and that when, in my philosophical disquisitions, I deny a providence and a future state, I undermine not the foundations of society, but advance principles which they themselves, upon their own topics, if they argue consistently, must allow to be solid and satisfactory.

You, then, who are my accusers, have acknowledged that the chief or sole argument for a divine existence (which I never questioned) is derived from the order of nature; where there appear such marks of intelligence and design that you think it extravagant to assign for its cause either chance or the blind and unguided force of matter. You allow that this is an argument drawn from effects to causes. From the order of the work you infer that there must have been project and forethought in the workman. If you cannot make out this point, you allow that your conclusion fails, and you pretend not to establish the conclusion in a greater latitude than the phenomena of nature will justify. These are your concessions. I desire you to mark the consequences.

When we infer any particular cause from an effect we must proportion the one to the other, and can never be allowed to ascribe to the cause any qualities but what are exactly sufficient to produce the effect. A body of ten ounces raised in any scale may serve as a proof that the counterbalancing weight exceeds ten ounces, but can never afford a reason that it exceeds a hundred. If the cause assigned for any effect be not sufficient to produce it, we must either reject that cause or add to it such qualities as will give it a just proportion to the effect. But if we ascribe to it further qualities, or affirm it capable of producing other effects, we can only indulge the licence of conjecture, and arbitrarily suppose the existence of qualities and energies without reason or authority.

The same rule holds whether the cause assigned be brute, unconscious matter or a rational, intelligent being. If the cause be known only by the effect, we never ought to ascribe to it any qualities beyond what are precisely requisite to produce the effect. Nor can we, by any rules of just reasoning, return back from the cause and infer other effects from it beyond those by which alone it is known to us. No one, merely from the sight of one of *Zeuxis's* pictures, could know that he was also a statuary or architect, and was an artist

no less skilful in stone and marble than in colours. The talents and taste displayed in the particular work before us; these we may safely conclude the workman to be possessed of. The cause must be proportioned to the effect; and if we exactly and precisely proportion it, we shall never find in it any qualities that point farther or afford an inference concerning any other design or performance. Such qualities must be somewhat beyond what is merely requisite for producing the effect which we examine.

Allowing, therefore, the gods to be the authors of the existence or order of the universe, it follows that they possess that precise degree of power, intelligence, and benevolence which appears in their workmanship; but nothing farther can ever be proved except we call in the assistance of exaggeration and flattery to supply the defects of argument and reasoning. So far as the traces of any attributes at present appear, so far may we conclude these attributes to exist. The supposition of further attributes is mere hypothesis; much more the supposition that in distant regions of space or periods of time there has been, or will be, a more magnificent display of these attributes and a scheme of administration more suitable to such imaginary virtues. We can never be allowed to mount up from the universe, the effect, to Jupiter, the cause, and then descend downwards to infer any new effect from that cause; as if the present effects alone were not entirely worthy of the glorious attributes which we ascribe to that deity. The knowledge of the cause being derived solely from the effect, they must be exactly adjusted to each other; and the one can never refer to anything farther, or be the foundation of any new inference and conclusion.

You find certain phenomena in nature. You seek a cause or author. You imagine that you have found him. You afterwards become so enamoured of this offspring of your brain that you imagine it impossible but he must produce something greater and more perfect than the present scene of things, which is so full of ill and disorder. You forget that this superlative intelligence and benevolence are entirely imaginary, or at least without any foundation in reason, and that you have no ground to ascribe to him any qualities but what you see he has actually exerted and displayed in his productions.

Let your gods, therefore, O philosophers, be suited to the present appearances of nature, and presume not to alter those appearances by arbitrary suppositions, in order to suit them to the attributes which you so fondly ascribe to your deities.

When priests and poets, supported by your authority, O Athenians, talk of a golden or silver age which preceded the present state of vice and misery, I hear them with attention and with reverence. But when philosophers, who pretend to neglect authority and to cultivate reason, hold the same discourse, I pay them not, I own, the same obsequious submission and pious deference. I ask: Who carried them into the celestial regions; who admitted them into the councils of the gods; who opened to them the book of fate, that they thus rashly affirm that their deities have executed, or will execute, any purpose beyond what has actually appeared? If they tell me that they have mounted on the steps, or by the gradual ascent of reason, and by drawing inferences from effects to causes, I still insist that they have aided the ascent of reason by the wings of imagination, otherwise they could not thus change their manner of inference, and argue from causes to effects, presuming that a more perfect production than the present world would be more suitable to such perfect beings as the gods, and forgetting that they have no reason to ascribe to these celestial beings any perfection or any attribute but what can be found in the present world.

Hence all the fruitless industry to account for the ill appearances of nature and save the honour of the gods, while we must acknowledge the reality of that evil and disorder with which the world so much abounds. The obstinate and intractable qualities of matter, we are told, or the observance of general laws, or some such reason, is the sole cause which controlled the power and benevolence of Jupiter, and obliged him to create mankind and every sensible creature so imperfect and so unhappy. These attributes, then, are, it seems, beforehand taken for granted in their greatest latitude. And upon that supposition I own that such conjectures may perhaps be admitted as plausible solutions of the ill phenomena. But still I ask: Why take these attributes for granted, or why ascribe to the cause any qualities but what actually appear in the effect? Why

torture your brain to justify the course of nature upon suppositions which, for aught you know, may be entirely imaginary, and of which there are to be found no traces in the course of nature?

The religious hypothesis, therefore, must be considered only as a particular method of accounting for the visible phenomena of the universe; but no just reasoner will ever presume to infer from it any single fact, and alter or add to the phenomena in any single particular. If you think that the appearances of things prove such causes, it is allowable for you to draw an inference concerning the existence of these causes. In such complicated and sublime subjects everyone should be indulged in the liberty of conjecture and argument. But here you ought to rest. If you come backward, and, arguing from your inferred causes, conclude that any other fact has existed, or will exist, in the course of nature which may serve as a fuller display of particular attributes, I must admonish you that you have departed from the method of reasoning attached to the present subject, and have certainly added something to the attributes of the cause beyond what appears in the effect; otherwise you could never, with tolerable sense or propriety, add anything to the effect in order to render it more worthy of the cause.

Where, then, is the odiousness of that doctrine which I teach in my school, or, rather, which I examine in my gardens? Or what do you find in this whole question wherein the security of good morals or the peace and order of society is in the least concerned?

I deny a providence, you say, and Supreme Governor of the world, who guides the course of events and punishes the vicious with misery and disappointment, and rewards the virtuous with honour and success in all their undertakings. But surely I deny not the course itself of events, which lies open to everyone's inquiry and examination. I acknowledge that, in the present order of things, virtue is attended with more peace of mind than vice, and meets with a more favourable reception from the world. I am sensible that, according to the past experience of mankind, friendship is the chief joy of human life, and moderation the only source of tranquillity and happiness. I never balance between the virtuous and the vicious course of life,

but am sensible that, to a well-disposed mind, every advantage is on the side of the former. And what can you say more, allowing all your suppositions and reasonings? You tell me, indeed, that this disposition of things proceeds from intelligence and design. But, whatever it proceeds from, the disposition itself, on which depends our happiness or misery, and consequently our conduct and deportment in life, is still the same. It is still open for me, as well as you, to regulate my behaviour by my experience of past events. And if you affirm that, while a divine providence is allowed, and a supreme distributive justice in the universe, I ought to expect some more particular reward of the good and punishment of the bad beyond the ordinary course of events, I here find the same fallacy which I have before endeavoured to detect. You persist in imagining that, if we grant that divine existence for which you so earnestly contend, you may safely infer consequences from it, and add something to the experienced order of nature, by arguing from the attributes which you ascribe to your gods. You seem not to remember that all your reasonings on this subject can only be drawn from effects to causes, and that every argument deduced from causes to effects must of necessity be a gross sophism, since it is impossible for you to know anything of the cause but what you have antecedently not inferred, but discovered to the full in the effect.

But what must a philosopher think of those vain reasoners who, instead of regarding the present scene of things as the sole object of their contemplation, so far reverse the whole course of nature as to render this life merely a passage to something farther a porch, which leads to a greater and vastly different building; a prologue, which serves only to introduce the piece and give it more grace and propriety? Whence, do you think, can such philosophers derive their idea of the gods? From their own conceit and imagination surely. For, if they derived it from the present phenomena, it would never point to anything farther, but must be exactly adjusted to them. That the divinity may *possibly* be endowed with attributes which we have never seen exerted—may be governed by principles of action which we cannot discover to be satisfied: all this will freely be allowed. But still this is mere *possibility* and hypothesis. We

never can have reason to *infer* any attributes or any principles of action in him, but so far as we know them to have been exerted and satisfied.

Are there any marks of a distributive justice in the world? If you answer in the affirmative, I conclude that, since justice here exerts itself, it is satisfied. If you reply in the negative, I conclude that you have then no reason to ascribe justice, in our sense of it, to the gods. If you hold a medium between affirmation and negation, by saying that the justice of the gods at present exerts itself in part but not in its full extent, I answer that you have no reason to give it any particular extent, but only so far as you see it *at present* exert itself.

Thus I bring the dispute, O Athenians, to a short issue with my antagonists. The course of nature lies open to my contemplation as well as to theirs. The experienced train of events is the great standard by which we all regulate our conduct. Nothing else can be appealed to, in the field or in the senate. Nothing else ought ever to be heard of in the school or in the closet. In vain would our limited understanding break through those boundaries which are too narrow for our fond imagination. While we argue from the course of nature and infer a particular intelligent cause which first bestowed, and still preserves, order in the universe, we embrace a principle which is both uncertain and useless. It is uncertain because the subject lies entirely beyond the reach of human experience. It is useless because, our knowledge of this cause being derived entirely from the course of nature, we can never, according to the rules of just reasoning, return back from the cause with any new inference, or, making additions to the common and experienced course of nature, establish any new principles of conduct and behaviour.

I observe (said I, finding he had finished his harangue) that you neglect not the artifice of the demagogues of old; and, as you were pleased to make me stand for the people, you insinuate yourself into my favour by embracing those principles to which you know I have always expressed a particular attachment. But, allowing you to make experience (as, indeed, I think you ought) the only standard of our judgment concerning this and all other questions of fact, I doubt not but, from the very same experience to which

you appeal, it may be possible to refute this reasoning which you have put into the mouth of Epicurus. If you saw, for instance, a half-finished building surrounded with heaps of brick and stone and mortar, and all the instruments of masonry, could you not *infer* from the effect that it was a work of design and contrivance? And could you not return again from this inferred cause to infer new additions to the effect, and conclude that the building would soon be finished and receive all the further improvements which art could bestow upon it? If you saw upon the sea-shore the print of one human foot, you would conclude that a man had passed that way, and that he had also left the traces of the other foot, though effaced by the rolling of the sands or inundation of the waters. Why, then, do you refuse to admit the same method of reasoning with regard to the order of nature? Consider the world and the present life only as an imperfect building from which you can infer a superior intelligence; and, arguing from that superior intelligence, which can leave nothing imperfect, why may you not infer a more finished scheme or plan which will receive its completion in some distant point of space or time? Are not these methods of reasoning exactly similar? And under what pretence can you embrace the one while you reject the other?

The infinite difference of the subjects, replied he, is a sufficient foundation for this difference in my conclusions. In works of *human* art and contrivance it is allowable to advance from the effect to the cause, and, returning back from the cause, to form new inferences concerning the effect, and examine the alterations which it has probably undergone, or may still undergo. But what is the foundation of this method of reasoning? Plainly this—that man is a being whom we know by experience, whose motives and designs we are acquainted with, and whose projects and inclinations have a certain connection and coherence, according to the laws which nature has established for the government of such a creature. When, therefore, we find that any work has proceeded from the skill and industry of man—as we are otherwise acquainted with the nature of the animal, we can draw a hundred inferences concerning what may be expected from him, and these inferences will all be founded in experience and ob-

servation. But did we know man only from the single work or production which we examine, it were impossible for us to argue in this manner, because, our knowledge of all the qualities which we ascribe to him being in that case derived from the production, it is impossible they could point to anything further, or be the foundation of any new inference. The print of a foot in the sand can only prove, when considered alone, that there was some figure adapted to it by which it was produced; but the print of a human foot proves likewise, from our other experience, that there was probably another foot which also left its impression, though effaced by time or other accidents. Here we mount from the effect to the cause; and, descending again from the cause, infer alterations in the effect; but this is not a continuation of the same simple chain of reasoning. We comprehend in this case a hundred other experiences and observations concerning the *usual* figure and members of that species of animal, without which this method of argument must be considered as fallacious and sophistical.

The case is not the same with our reasonings from the works of nature. The Deity is known to us only by his productions, and is a single being in the universe, not comprehended under any species or genus, from whose experienced attributes or qualities we can by analogy infer any attribute or quality in him. As the universe shows wisdom and goodness, we infer wisdom and goodness. As it shows a particular degree of these perfections, we infer a particular degree of them, precisely adapted to the effect which we examine. But further attributes, or further degrees of the same attributes, we can never be authorised to infer or suppose by any rules of just reasoning. Now, without some such license of supposition, it is impossible for us to argue from the cause or infer any alteration in the effect beyond what has immediately fallen under our observation. Greater good produced by this Being must still prove a greater degree of goodness; a more impartial distribution of rewards and punishments must proceed from a greater regard to justice and equity. Every supposed addition to the works of nature makes an addition to the attributes of the author of nature; and consequently, being entirely unsupported by any reason or argument, can

never be admitted but as mere conjecture and hypothesis.*

The great source of our mistake in this subject, and of the unbounded licence of conjecture which we indulge, is that we tacitly consider ourselves as in the place of the Supreme Being, and conclude that he will on every occasion observe the same conduct which we ourselves in his situation would have embraced as reasonable and eligible. But, besides that the ordinary course of nature may convince us that almost everything is regulated by principles and maxims very different from ours—besides this, I say, it must evidently appear contrary to all rules of analogy to reason from the intentions and projects of men to those of a Being so different and so much superior. In human nature there is a certain experienced coherence of designs and inclinations, so that when, from any fact, we have discovered one intention of any man, it may often be reasonable from experience to infer another, and draw a long chain of conclusions concerning his past or future conduct. But this method of reasoning can never have place with regard to a Being so remote and incomprehensible, who bears much less analogy to any other being in the universe than the sun to a waxen taper, and who discovers himself only by some faint traces or outlines, beyond which we have no authority to ascribe to him any attribute or perfection. What we imagine to be a superior perfection may really be a defect. Or were it ever so much a perfection, the ascribing of it to the Supreme Being, where it appears not to have been really exerted to the full in his works, savours more of

flattery and panegyric than of just reasoning and sound philosophy. All the philosophy, therefore, in the world, and all the religion, which is nothing but a species of philosophy, will never be able to carry us beyond the usual course of experience, or give us measures of conduct and behaviour different from those which are furnished by reflections on common life. No new fact can ever be inferred from the religious hypothesis; no event foreseen or foretold; no reward or punishment expected or dreaded beyond what is already known by practice and observation. So that my apology for Epicurus will still appear solid and satisfactory; nor have the political interests of society any connection with the philosophical disputes concerning metaphysics and religion.

There is still one circumstance, replied I, which you seem to have overlooked. Though I should allow your premises, I must deny your conclusion. You conclude that religious doctrines and reasonings *can* have no influence on life, because they *ought* to have no influence; never considering that men reason not in the same manner you do, but draw many consequences from the belief of a divine existence, and suppose that the Deity will inflict punishments on vice and bestow rewards on virtue beyond what appear in the ordinary course of nature. Whether this reasoning of theirs be just or not is no matter. Its influence on their life and conduct must still be the same. And those who attempt to disabuse them of such prejudices may, for aught I know, be good reasoners, but I cannot allow them to be good citizens and politicians, since they free men from one restraint upon their passions and make the infringement of the laws of society, in one respect, more easy and secure.

After all I may, perhaps, agree to your general conclusion in favour of liberty, though upon different premises from those on which you endeavour to found it. I think that the State ought to tolerate every principle of philosophy; nor is there an instance that any government has suffered in its political interests by such indulgence. There is no enthusiasm among philosophers; their doctrines are not very alluring to the people; and no restraint can be put upon their reasonings but what must be of dangerous consequence to the sciences, and even to the State, by paying the way for persecution

* In general, it may, I think, be established as a maxim that, where any cause is known only by its particular effects, it must be impossible to infer any new effects from that cause, since the qualities which are requisite to produce these new effects along with the former must either be different or superior or of more extensive operation than those which simply produced the effect whence alone the cause is supposed to be known to us. We can never, therefore, have any reason to suppose the existence of these qualities. To say that the new effects proceed only from a continuation of the same energy which is already known from the first effects will not remove the difficulty. For, even granting this to be the case (which can seldom be supposed), the very continuation and exertion of a like energy (for it is impossible it can be absolutely the same) I say, this exertion of a like energy, in a different period of space and time, is a very arbitrary supposition, and what there cannot possibly be any traces of in the effects from which all our knowledge of the cause is originally derived. Let the *inferred* cause be exactly proportioned (as it should be) to the known effect, and it is impossible that it can possess any qualities from which new or different effects can be *inferred*.

and oppression in points where the generality of mankind are more deeply interested and concerned.

But there occurs to me (continued I), with regard to your main topic, a difficulty, which I shall just propose to you without insisting on it, lest it lead into reasonings of too nice and delicate a nature. In a word, I much doubt whether it be possible for a cause to be known only by its effect (as you have all along supposed), or to be of so singular and particular a nature as to have no parallel and no similarity with any other cause or object that has ever fallen under our observation. It is only when two *species* of objects are found to be constantly conjoined that we can infer the one from the other, and were in effect presented which was entirely singular, and could not be comprehended under any known species, I do not see that we could form any conjecture or inference at all concerning its

cause. If experience and observation and analogy be, indeed, the only guides which we can reasonably follow in inferences of this nature, both the effect and cause must bear a similitude and resemblance to other effects and causes, which we know, and which we have found in many instances to be conjoined with each other. I leave it to your own reflection to pursue the consequences of this principle. I shall just observe that, as the antagonists of Epicurus always supposed the universe, an effect quite singular and unparallelled, to be the proof of a Duty, a cause no less singular and unparallelled, your reasonings upon that supposition seem at least to merit our attention. There is, I own, some difficulty how we can ever return from the cause to the effect, and, reasoning from our idea of the former, infer any alteration on the latter, or any addition to it.

SECTION XII.

OF THE ACADEMICAL OR SCEPTICAL PHILOSOPHY

PART I.

THERE is not a greater number of philosophical reasonings displayed upon any subject than those which prove the existence of a Deity and refute the fallacy of *Atheists*; and yet the most religious philosophers still dispute whether any man can be so blinded as to be speculative *Atheist*. How shall we reconcile these contradictions? The knights-errant who wandered about to clear the world of dragons and giants never entertained the least doubt with regard to the existence of these monsters.

The *Sceptic* is another enemy of religion, who naturally provokes the indignation of all divines and graver philosophers, though it is certain that no man ever met with any such absurd creature, or conversed with a man who had no opinion or principle concerning any subject either of *action* or speculation. This begets a very

natural question. What is meant by a sceptic? And how far is it possible to push these philosophical principles of doubt and uncertainty?

There is a species of scepticism, *antedated* it to all study and philosophy, which is much inculcated by Descartes and others; is a sovereign preservative against error and precipitate judgment. It recommends an universal doubt not only of all our former opinions and principles, but also of our very faculties, of whose veracity, say they, we must assure ourselves by a chain of reasoning deduced from some original principle which cannot possibly be fallacious or deceitful. But neither is there any such original principle which has a prerogative above others that are self-evident and convincing; nor, if there were, could we advance a step beyond it but by the use of those very faculties of which we are supposed to be already dissident. The

- Cartesian doubt, therefore, were it ever possible to be attained by any human creature (as it plainly is not), would be entirely incurable, and no reasoning could ever bring us to a state of assurance and conviction upon any subject.

It must, however, be confessed that this species of scepticism, when more moderate, may be understood in a very reasonable sense, and is a necessary preparative to the study of philosophy, by preserving a proper impartiality in our judgments and weaning our mind from all those prejudices which we may have imbibed from education or rash opinion. To begin with clear and self-evident principles, to advance by timorous and sure steps, to review frequently our conclusions and examine accurately all their consequences, though by these means we shall make both a slow and a short progress in our systems, are the only methods by which we can ever hope to reach truth and attain a proper stability and certainty in our determinations.

There is another species of scepticism, *consequent* to science and inquiry, when men are supposed to have discovered either the absolute fallaciousness of their mental faculties or their inability to reach any fixed determination in all those curious subjects of speculation about which they are commonly employed. Even our very senses are brought into dispute by a certain species of philosophers, and the maxims of common life are subjected to the same doubt as the most profound principles or conclusions of metaphysics and theology. As these paradoxical tenets (if they may be called tenets) are to be met with in some philosophers, and the refutation of them in several, they naturally excite our curiosity, and make us inquire into the arguments on which they may be founded.

I need not insist upon the more trite topics employed by the sceptics in all ages against the evidence of *sense*, such as those which are derived from the imperfection and fallaciousness of our organs on numberless occasions; the crooked appearance of an oar in water; the various aspects of objects according to their different distances; the double images which arise from the pressing one eye; with many other appearances of a like nature. These sceptical topics, indeed, are only sufficient to prove that the senses alone are not implicitly to be depended on, but that we must correct

their evidence by reason and by considerations derived from the nature of the medium, the distance of the object, and the disposition of the organ, in order to render them, within their sphere, the proper criteria of truth and falsehood. There are other more profound arguments against the senses which admit not of so easy a solution.

It seems evident that men are carried, by a natural instinct or prepossession, to repose faith in their senses, and that, without any reasoning, or even almost before the use of reason, we always suppose an external universe which depends not on our perception, but would exist though we and every sensible creature were absent or annihilated. Even the animal creation are governed by a like opinion, and preserve this belief of external objects in all their thoughts, designs, and actions.

It seems also evident that when men follow this blind and powerful instinct of nature they always suppose the very images presented by the senses to be the external objects, and never entertain any suspicion that the one are nothing but representations of the other. This very table, which we see white, and which we feel hard, is believed to exist independent of our perception, and to be something external to our mind, which perceives it. Our presence bestows not being on it; our absence does not annihilate it. It preserves its existence uniform and entire, independent of the situation of intelligent beings who perceive or contemplate it.

But this universal and primary opinion of all men is soon destroyed by the slightest philosophy, which teaches us that nothing can ever be present to the mind but an image or perception, and that the senses are only the inlets through which these images are conveyed, without being able to produce any immediate intercourse between the mind and the object. The table which we see seems to diminish as we move farther from it; but the real table, which exists independent of us, suffers no alteration: it was, therefore, nothing but its image which was present to the mind. These are the obvious dictates of reason; and no man who reflects ever doubted that the existences which we consider when we say *this house* and *that tree* are nothing but perceptions in the mind, and fleeting copies or representations of other existences which remain uniform and independent.

So far, then, are we necessitated by reasoning to contradict or depart from the primary instincts of nature, and to embrace a new system with regard to the evidence of our senses. But here philosophy finds herself extremely embarrassed when she would justify this new system and obviate the cavils and objections of the sceptics. She can no longer plead the infallible and irresistible instinct of nature, for that led us to a quite different system, which is acknowledged fallible, and even erroneous. And to justify this pretended philosophical system by a chain of clear and convincing argument, or even any appearance of argument, exceeds the power of all human capacity.

By what argument can it be proved that the perceptions of the mind must be caused by external objects entirely different from them, though resembling them (if that be possible), and could not arise either from the energy of the mind itself or from the suggestion of some invisible and unknown spirit, or from some other cause still more unknown to us? It is acknowledged that, in fact, many of these perceptions arise not from anything external, as in dreams, madness, and other diseases. And nothing can be more inexplicable than the manner in which body should so operate upon mind as ever to convey an image of itself to a substance supposed of so different and even contrary a nature.

It is a question of fact whether the perceptions of the senses be produced by external objects resembling them. How shall this question be determined? By experience, surely, as all other questions of a like nature. But here experience is, and must be, entirely silent. The mind has never anything present to it but the perceptions, and cannot possibly reach any experience of their connection with objects. The supposition of such a connection is, therefore, without any foundation in reasoning.

To have recourse to the veracity of the Supreme Being in order to prove the veracity of our senses is surely making a very unexpected circuit. If his veracity were at all concerned in this matter, our senses would be entirely infallible, because it is not possible that he can ever deceive. Not to mention that if the external world be once called in question, we shall be at a loss to find arguments by which we may prove the existence of that Being or any of his attributes.

This is a topic, therefore, in which the profounder and more philosophical sceptics will always triumph when they endeavour to introduce an universal doubt into all subjects of human knowledge and inquiry. Do you follow the instincts and propensities of nature, may they say, in assenting to the veracity of sense? But these lead you to believe that the very perception or sensible image is the external object. Do you disclaim this principle in order to embrace a more rational opinion that the perceptions are only representations of something external? You here depart from your natural propensities and more obvious sentiments, and yet are not able to satisfy your reason, which can never find any convincing argument from experience to prove that the perceptions are connected with any external objects.

There is another sceptical topic of a like nature, derived from the most profound philosophy, which might merit our attention were it requisite to dive so deep in order to discover arguments and reasonings which can so little serve to any serious purpose. It is universally allowed by modern inquirers that all the sensible qualities of objects, such as hard, soft, hot, cold, white, black, etc., are merely secondary, and exist not in the objects themselves, but are perceptions of the mind, without any external archetype or model which they represent. If this be allowed with regard to secondary qualities, it must also follow with regard to the supposed primary qualities of extension and solidity; nor can the latter be any more entitled to that denomination than the former. The idea of extension is entirely acquired from the senses of sight and feeling; and if all the qualities perceived by the senses be in the mind, not in the object, the same conclusion must reach the idea of extension, which is wholly dependent on the sensible ideas or the ideas of secondary qualities. Nothing can save us from this conclusion but the asserting that the ideas of those primary qualities are attained by *abstraction*—an opinion which, if we examine it accurately, we shall find to be unintelligible, and even absurd. An extension that is neither tangible nor visible cannot possibly be conceived; and a tangible or visible extension which is neither hard nor soft, black nor white, is equally beyond the reach of human conception. Let any man try to conceive a triangle in general, which is neither isosceles nor scalenum, nor has

any particular length or proportion of sides, and he will soon perceive the absurdity of all the scholastic notions with regard to abstraction and general ideas.¹

Thus the first philosophical objection to the evidence of sense or to the opinion of external existence consists in this, that such an opinion, if rested on natural instinct, is contrary to reason, and, if referred to reason, is contrary to natural instinct, and at the same time carries no rational evidence with it to convince an impartial inquirer. The second objection goes farther, and represents this opinion as contrary to reason; at least, if it be a principle of reason that all sensible qualities are in the mind, not in the object. Bereave matter of all its intelligible qualities, both primary and secondary, you in a manner annihilate it, and leave only a certain unknown, inexplicable *something* as the cause of our perceptions: a notion so imperfect that no sceptic will think it worth while to contend against it.

PART II.

It may seem a very extravagant attempt of the sceptics to destroy *reason* by argument and ratiocination; yet is this the grand scope of all their inquiries and disputes. They endeavour to find objections both to our abstract reasonings and to those which regard matter of fact and existence.

The chief objection against all *abstract* reasonings is derived from the ideas of space and time—ideas which, in common life and to a careless view, are very clear and intelligible, but when they pass through the scrutiny of the profound sciences (and they are the chief object of these sciences) afford principles which seem full of absurdity and contradiction. No priestly *dogmas*, invented on purpose to tame and subdue the rebellious reason of mankind, ever shocked common sense more than the doctrine of the infinite divisibility of extension, with its conse-

quences, as they are pompously displayed by all geometricians and metaphysicians with a kind of triumph and exultation. A real quantity, infinitely less than any finite quantity, containing quantities infinitely less than itself, and so on *in infinitum*: this is an edifice so bold and prodigious that it is too weighty for any pretended demonstration to support, because it shocks the clearest and most natural principles of human reason.² But what renders the matter more extraordinary is that these seemingly absurd opinions are supported by a chain of reasoning the clearest and most natural; nor is it possible for us to allow the premises without admitting the consequences. Nothing can be more convincing and satisfactory than all the conclusions concerning the properties of circles and triangles; and yet, when these are once received, how can we deny that the angle of contact between a circle and its tangent is infinitely less than any rectilinear angle; that as you may increase the diameter of the circle *in infinitum* this angle of contact becomes still less, even *in infinitum*; and that the angle of contact between other curves and their tangents may be infinitely less than those between any circle and its tangent, and so on *in infinitum*? The demonstration of these principles seems as unexceptionable as that which proves the three angles of a triangle to be equal to two right ones, though the latter opinion be natural and easy, and the former big with contradiction and absurdity. Reason here seems to be thrown into a kind of amazement and suspense, which, without the suggestions of any sceptic, gives her a diffidence of herself and of the ground on which she treads. She sees a full light which illuminates certain places; but that light borders upon the most profound darkness. And between these she is so dazzled and confounded that she scarcely can pronounce with certainty and assurance concerning any one object.

¹ This argument is drawn from Dr. Berkeley, and, indeed, most of the writings of that very ingenious author form the best lessons of scepticism which are to be found either among the ancient or modern philosophers, Bayle not excepted. He professes, however, in his title-page (and undoubtedly with great truth), to have composed his book against the sceptics as well as against the atheists and free thinkers. But that all his arguments, though otherwise intended, are in reality merely sceptical, appears from this, that they admit of *no answer and produce no conviction*. Their only effect is to cause that momentary amazement and irresolution and confusion which is the result of scepticism.

² Whatever disputes there may be about mathematical points, we must allow that there are physical points; that is, parts of extension, which cannot be divided or lessened either by the eye or imagination. These images, then, which are present to the fancy or senses, are absolutely indivisible, and consequently must be allowed by mathematicians to be infinitely less than any real part of extension; and yet nothing appears more certain to reason than that an infinite number of them composes an infinite extension. How much more an infinite number of those infinitely small parts of extension which are still supposed infinitely divisible.

The absurdity of these hold determinations of the abstract sciences seems to become, if possible, still more palpable with regard to time than extension. An infinite number of real parts of time passing in succession, and exhausted one after another, appears so evident a contradiction that no man, one should think, whose judgment is not corrupted, instead of being improved, by the sciences would ever be able to admit of it.

Yet still reason must remain restless and unquiet, even with regard to that scepticism to which she is driven by these seeming absurdities and contradictions. How any clear, distinct idea can contain circumstances contradictory to itself or to any other clear, distinct idea is absolutely incomprehensible, and is, perhaps, as absurd as any proposition which can be formed. So that nothing can be more sceptical or more full of doubt and hesitation than this scepticism itself, which arises from some of the paradoxical conclusions of geometry, or the science of quantity.¹

The sceptical objections to *moral* evidence, or to the reasonings concerning matter of fact, are either *popular* or *philosophical*. The popular objections are derived from the natural weakness of human understanding, the contradictory opinions which have been entertained in different ages and nations, the variations of our judgment in sickness and health, youth and old age, prosperity and adversity; the perpetual contradiction of each particular man's opinions and sentiments, with many other topics of that kind. It is needless to insist farther on this head. These objections are but weak. For, as

¹ It seems to me not impossible to avoid these absurdities and contradictions, if it be admitted that there is no such thing as abstract or general ideas, properly speaking, but that all general ideas are, in reality, particular ones, attached to a general term, which recalls, upon occasion, other particular ones that resemble, in certain circumstances, the idea present to the mind. Thus, when the term "horse" is pronounced, we immediately figure to ourselves the idea of a black or a white animal, of a particular size or figure. But as that term is also usually applied to animals of other colours, figures, and sizes, these ideas, though not actually present to the imagination, are easily recalled, and our reasoning and conclusion proceed in the same way as if they were actually present. If this be admitted (as seems reasonable), it follows that all the ideas of quantity upon which mathematicians reason are nothing but particular, and such as are suggested by the senses and imagination, and, consequently, cannot be infinitely divisible. It is sufficient to have dropped this hint at present, without prosecuting it any farther. It certainly concerns all lovers of science not to expose themselves to the ridicule and contempt of the ignorant by their conclusions, and this seems the readiest solution of these difficulties.

in common life we reason every moment concerning fact and existence, and cannot possibly subsist without continually employing this species of argument, any popular objections derived from thence must be insufficient to destroy that evidence. The great subverter of *Pyrrhonism*, or the excessive principles of scepticism, is action and employment and the occupations of common life. These principles may flourish and triumph in the schools, where it is indeed difficult, if not impossible, to refute them. But as soon as they leave the shade, and, by the presence of the real objects which actuate our passions and sentiments, are put in opposition to the more powerful principles of our nature, they vanish like smoke, and leave the most determined sceptic in the same condition as other mortals.

The sceptic, therefore, had better keep within his proper sphere, and display those *philosophical* objections which arise from more profound researches. Here he seems to have ample matter of triumph, while he justly insists that all our evidence for any matter of fact which lies beyond the testimony of sense or memory is derived entirely from the relation of cause and effect; that we have no other idea of this relation than that of two objects which have been frequently *conjoined* together; that we have no argument to convince us that objects which have, in our experience, been frequently conjoined will likewise, in other instances, be conjoined in the same manner; and that nothing leads us to this inference but custom or a certain instinct of our nature, which it is indeed difficult to resist, but which, like other instincts, may be fallacious and deceitful. While the sceptic insists upon these topics he shows his force, or rather, indeed, his own and our weakness, and seems, for the time at least, to destroy all assurance and conviction. These arguments might be displayed at greater length if any durable good or benefit to society could ever be expected to result from them.

For here is the chief and most confounding objection to *excessive* scepticism, that no durable good can ever result from it while, it remains in its full force and vigour. We need only ask such a sceptic, *What his meaning is? And what he proposes by all these curious researches?* He is immediately at a loss, and knows not what to answer. A Copernican or

Ptolemaic, who supports each his different system of astronomy, may hope to produce a conviction which will remain constant and durable with his audience. A Stoic or Epicurean displays principles which may not be durable, but which have an effect on conduct and behaviour. But a Pyrrhonian cannot expect that his philosophy will have any constant influence on the mind; or, if it had, that its influence would be beneficial to society. On the contrary, he must acknowledge, if he will acknowledge anything, that all human life must perish were his principles universally and steadily to prevail. All discourse, all action, would immediately cease, and men remain in a total lethargy till the necessities of nature, unsatisfied, put an end to their miserable existence. It is true, so fatal an event is very little to be dreaded. Nature is always too strong for principle. And though a Pyrrhonian may throw himself or others into a momentary amazement and confusion by his profound reasonings, the first and most trivial event in life will put to flight all his doubts and scruples, and leave him the same, in every point of action and speculation, with the philosophers of every other sect, or with those who never concerned themselves in any philosophical researches. When he awakes from his dream he will be the first to join in the laugh against himself, and to confess that all his objections are mere amusement, and can have no other tendency than to show the whimsical condition of mankind, who must act and reason and believe, though they are not able, by their most diligent inquiry, to satisfy themselves concerning the foundation of these operations, or to remove the objections which may be raised against them.

PART III.

There is, indeed, a more *mitigated* scepticism, or *academical* philosophy, which may be both durable and useful, and which may, in part, be the result of this Pyrrhonism, or *excessive* scepticism, when its undistinguished doubts are, in some measure, corrected by common sense and reflection. The greater part of mankind are naturally apt to be affirmative and dogmatical in their opinions; and while they see objects only on one side, and have no idea of any counterpoising argument, they throw themselves precipitately into the principles to which they are

inclined; nor have they any indulgence for those who entertain opposite sentiments. To hesitate or balance perplexes their understanding, checks their passion, and suspends their action. They are, therefore, impatient till they escape from a state which to them is so uneasy, and they think that they could never remove themselves far enough from it by the violence of their affirmations and obstinacy of their belief. But could such dogmatical reasoners become sensible of the strange infirmities of human understanding, even in its most perfect state, and when most accurate and cautious in its determinations, such a reflection would naturally inspire them with more modesty and reserve, and diminish their fond opinion of themselves and their prejudice against antagonists. The illiterate may reflect on the disposition of the learned, who, amid all the advantages of study and reflection, are commonly still diffident in their determinations; and if any of the learned be inclined, from their natural temper, to haughtiness and obstinacy, a small tincture of Pyrrhonism might abate their pride, by showing them that the few advantages which they may have attained over their fellows are but inconsiderable if compared with the universal perplexity and confusion which is inherent in human nature. In general, there is a degree of doubt and caution and modesty which, in all kinds of scrutiny and decision, ought for ever to accompany a just reasoner.

Another species of *mitigated* scepticism which may be of advantage to mankind, and which may be the natural result of the Pyrrhonian doubts and scruples, is the limitation of our inquiries to such subjects as are best adapted to the narrow capacity of human understanding. The *imagination* of man is naturally sublime, delighted with whatever is remote and extraordinary, and running, without control, into the most distant parts of space and time in order to avoid the objects which custom has rendered too familiar to it. A correct *judgment* observes a contrary method, and, avoiding all distant and high inquiries, confines itself to common life, and to such subjects as fall under daily practice and experience, leaving the more sublime topics to the embellishment of poets and orators, or to the arts of priests and politicians. To bring us to so salutary a determination nothing can be more serviceable than to be once thoroughly convinced of the force of the

Pyrrhonian doubt, and of the impossibility that anything but the strong power of natural instinct could free us from it. Those who have a propensity to philosophy will still continue their researches, because they reflect that, besides the immediate pleasure attending such an occupation, philosophical decisions are nothing but the reflections of common life methodised and corrected. But they will never be tempted to go beyond common life so long as they consider the imperfection of those faculties which they employ, their narrow reach, and their inaccurate operations. While we cannot give a satisfactory reason why we believe, after a thousand experiments, that a stone will fall or fire burn, can we ever satisfy ourselves concerning any determination which we may form with regard to the origin of worlds and the situation of nature from and to eternity?

This narrow limitation, indeed, of our inquiries is in every respect so reasonable that it suffices to make the slightest examination into the natural powers of the human mind, and to compare them with their objects, in order to recommend it to us. We shall then find what are the proper subjects of science and inquiry.

It seems to me that the only objects of the abstract science or of demonstration are quantity and number, and that all attempts to extend this more perfect species of knowledge beyond these bounds are mere sophistry and illusion. As the component parts of quantity and number are entirely similar, their relations become intricate and involved, and nothing can be more curious, as well as useful, than to trace, by a variety of mediums, their equality or inequality through their different appearances. But as all other ideas are clearly distinct and different from each other, we can never advance farther, by our utmost scrutiny, than to observe this diversity, and, by an obvious reflection, pronounce one thing not to be another. Or, if there be any difficulty in these decisions, it proceeds entirely from the undeterminate meaning of words, which is corrected by juster definitions. That *the square of the hypotenuse is equal to the squares of the other two sides* cannot be known, let the terms be ever so exactly defined, without a train of reasoning and inquiry. But to convince us of this proposition, *that where there is no property there can be no injustice*, it is only necessary to define the terms and explain

injustice to be a violation of property. This proposition is, indeed, nothing but a more imperfect definition. It is the same case with all those pretended syllogistical reasonings which may be found in every other branch of learning except the sciences of quantity and number; and these may safely, I think, be pronounced the only proper objects of knowledge and demonstration.

All other inquiries of men regard only matter of fact and existence, and these are evidently incapable of demonstration. Whatever *is* may *not be*. No negation of a fact can involve a contradiction. The non-existence of any being, without exception, is as clear and distinct an idea as its existence. The proposition which affirms it not to be, however false, is no less conceivable and intelligible than that which affirms it to be. The case is different with the sciences, properly so called. Every proposition which is not true is there confused and unintelligible. That the cube root of sixty-four is equal to the half of ten is a false proposition, and can never be distinctly conceived. But that Caesar, or the angel Gabriel, or any being never existed may be a false proposition, but still is perfectly conceivable, and implies no contradiction.

The existence, therefore, of any being can only be proved by arguments from its cause or its effect, and these arguments are founded entirely on experience. If we reason *a priori*, anything may appear able to produce anything. The falling of a pebble may, for aught we know, extinguish the sun, or the wish of a man control the planets in their orbits. It is only experience which teaches us the nature and bounds of cause and effect, and enables us to infer the existence of one object from that of another.¹ Such is the foundation of moral reasoning, which forms the greater part of human knowledge, and is the source of all human action and behaviour.

Moral reasonings are either concerning particular or general facts. All deliberations in life regard the former, as also all disquisitions in history, chronology, geography, and astronomy.

The sciences which treat of general

¹ That impious maxim of the ancient philosophy, *Ex nihilo nihil fit*, by which the creation of matter was excluded, seems to be a maxim according to this philosophy. Not only the will of the Supreme Being may create matter, but, for aught we know *a priori*, the will of any other being might create it, or any other cause that the most whimsical imagination can assign.

facts are politics, natural philosophy, physic, chemistry, etc., where the qualities, causes, and effects of a whole species of objects are inquired into.

Divinity or theology, as it proves the existence of a Deity and the immortality of souls, is composed partly of reasonings concerning particular, partly concerning general facts. It has a foundation in *reason* so far as it is supported by experience. But its best and most solid foundation is *faith* and divine revelation.

Morals and criticism are not so properly objects of the understanding as of taste and sentiment. Beauty, whether moral or natural, is felt more properly than perceived. Or if we reason concerning it,

and endeavour to fix its standard, we regard a new fact—to wit, the general tastes of mankind, or some such fact, which may be the object of reasoning and inquiry.

When we run over libraries, persuaded of these principles, what havoc must we make? If we take in our hand any volume of divinity or school metaphysics, for instance, let us ask, *Does it contain any abstract reasoning concerning quantity or number?* No. *Does it contain any experimental reasoning concerning matter of fact and existence?* No. Commit it then to the flames, for it can contain nothing but sophistry and illusion.

AN INQUIRY CONCERNING THE PRINCIPLES OF MORALS

SECTION I.

OF THE GENERAL PRINCIPLES OF MORALS

DISPUTES with men pertinaciously obstinate in their principles are, of all others, the most irksome, except, perhaps, those with persons entirely disingenuous, who really do not believe the opinions they defend, but engage in the controversy from affectation, from a spirit of opposition, or from a desire of showing wit and ingenuity superior to the rest of mankind. The same blind adherence to their own arguments is to be expected in both; the same contempt of their antagonists, and the same passionate vehemence in enforcing sophistry and falsehood. And as reasoning is not the source whence either disputant derives his tenets, it is in vain to expect that any logic which speaks not to the affections will ever engage him to embrace sounder principles.

Those who have denied the reality of moral distinctions may be ranked among the disingenuous disputants, nor is it conceivable that any human creature could ever seriously believe that all characters and actions were alike entitled to the affection and regard of everyone. The difference which nature has placed between one man and another is so wide, and this difference is still so much farther widened by education, example, and habit, that, where the opposite extremes come at once under our apprehension, there is no scepticism so scrupulous, and scarce any assurance so determined, as absolutely to deny all distinction between them. Let a man's insensibility be ever so great, he must often be touched with the images of Right and Wrong; and let his prejudices be ever so obstinate,

he must observe that others are susceptible of like impressions. The only way, therefore, of converting an antagonist of this kind is to leave him to himself. For, finding that nobody keeps up the controversy with him, it is probable that he will, at last, of himself, from mere weariness, come over to the side of common sense and reason.

There has been a controversy started of late, much better worth examination, concerning the general foundation of morals: whether they be derived from reason or from sentiment; whether we attain the knowledge of them by a chain of argument and induction, or by an immediate feeling and finer internal sense; whether, like all sound judgment of truth and falsehood, they should be the same to every rational intelligent being; or whether, like the perception of beauty and deformity, they be founded entirely on the particular fabric and constitution of the human species.

The ancient philosophers, though they often affirm that virtue is nothing but conformity to reason, yet, in general, seem to consider morals as deriving their existence from taste and sentiment. On the other hand, our modern inquirers, though they also talk much of the beauty of virtue and deformity of vice, yet have commonly endeavoured to account for these distinctions by metaphysical reasonings, and by deductions from the most abstract principles of the understanding. Such confusion reigned in these subjects that an opposition of the greatest consequence could prevail between one system

and another, and even in the parts of almost each individual system; and yet nobody, till very lately, was ever sensible of it. The elegant Lord Shaftesbury, who first gave occasion to remark this distinction, and who, in general, adhered to the principles of the ancients, is not himself entirely free from the same confusion.

It must be acknowledged that both sides of the question are susceptible of specious arguments. Moral distinctions, it may be said, are discernible by pure *reason*, else whence the many disputes that reign in common life, as well as in philosophy, with regard to this subject—the long chain of proofs often produced on both sides; the examples cited, the authorities appealed to, the analogies employed, the fallacies detected, the inferences drawn, and the several conclusions adjusted to their proper principles? Truth is disputable, not taste; what exists in the nature of things is the standard of our judgment; what each man feels within himself is the standard of sentiment. Propositions in geometry may be proved, systems in physics may be controverted; but the harmony of verse, the tenderness of passion, the brilliancy of wit, must give immediate pleasure. No man reasons concerning another's beauty, but frequently concerning the justice or injustice of his actions. In every criminal trial the first object of the prisoner is to disprove the facts alleged, and deny the actions imputed to him; the second to prove that, even if these actions were read, they might be justified as innocent and lawful. It is confessedly by deductions of the understanding that the first point is ascertained; how can we suppose that a different faculty of the mind is employed in fixing the other?

On the other hand, those who would resolve all moral determinations into *sentiment* may endeavour to show that it is impossible for reason ever to draw conclusions of this nature. To virtue, say they, it belongs to be *amiable*, and vice *odious*. This forms their very nature or essence. But can reason or argumentation distribute these different epithets to any subjects, and pronounce beforehand that this must produce love, and that hatred? Or what other reason can we ever assign for these affections but the original fabric and formation of the human mind, which is naturally adapted to receive them?

The end of all moral speculations is to teach us our duty, and, by proper representations of the deformity of vice and beauty of virtue, beget corresponding habits, and engage us to avoid the one and embrace the other. But is this ever to be expected from inferences and conclusions of the understanding, which of themselves have no hold of the affections, or set in motion the active powers of men? They discover truths; but where the truths which they discover are indifferent, and beget no desire or aversion, they can have no influence on conduct and behaviour. What is honourable, what is fair, what is becoming, what is noble, what is generous, takes possession of the heart, and animates us to embrace and maintain it. What is intelligible, what is evident, what is probable, what is true, procures only the cool assent of the understanding, and, gratifying a speculative curiosity, puts an end to our researches.

Extinguish all the warm feelings and prepossessions in favour of virtue, and all disgust or aversion to vice—render men totally indifferent towards these distinctions—and morality is no longer a practical study, nor has any tendency to regulate our lives and actions.

These arguments on each side (and many more might be produced) are so plausible that I am apt to suspect they may, the one as well as the other, be solid and satisfactory, and that *reason* and *sentiment* concur in almost all moral determinations and conclusions. The final sentence, it is probable, which pronounces characters and actions amiable or odious, praiseworthy or blamable; that which stamps on them the mark of honour or infamy, approbation or censure; that which renders morality an active principle, and constitutes virtue our happiness and vice our misery—it is probable, I say, that this final sentence depends on some internal sense or feeling which nature has made universal in the whole species. For what else can have an influence of this nature? But, in order to pave the way for such a sentiment, and give a proper discernment of its object, it is often necessary, we find, that much reasoning should precede, that nice distinctions be made, just conclusions drawn, distant comparisons formed, complicated relations examined, and general facts fixed and ascertained. Some species of beauty, especially the natural kinds, on

their first appearance command our affection and approbation; and where they fail of this effect it is impossible for any reasoning to redress their influence, or adapt them better to our taste and sentiment. But in many orders of beauty, particularly those of the finer arts, it is requisite to employ much reasoning in order to feel the proper sentiment; and a false relish may frequently be corrected by argument and reflection. There are just grounds to conclude that moral beauty partakes much of this latter species, and demands the assistance of our intellectual faculties, in order to give it a suitable influence on the human mind.

But though this question concerning the general principles of morals be curious and important, it is needless for us at present to employ farther care in our researches concerning it. For if we can be so happy, in the course of this inquiry, as to discover the true origin of morals, it will then easily appear how far either sentiment or reason enters into all determinations of this nature.[†] In order to attain this purpose, we shall endeavour to follow a very simple method: we shall analyse that complication of mental qualities which form what, in common life, we call personal merit; we shall consider every attribute of the mind which renders a man an object either of esteem and affection, or of hatred and contempt; every habit or sentiment or faculty which, if ascribed to any person, implies either praise or blame, and may enter into any panegyric or satire of his character and manners. The quick sensibility which, on this head, is so universal among mankind gives a philosopher sufficient assurance that he can never be considerably mistaken in framing the catalogue, or incur any danger of misplacing the objects of his contemplation; he needs only enter into his own breast for a moment, and consider whether or not he should desire to have this or that quality ascribed

to him, and whether such or such an imputation would proceed from a friend or an enemy. The very nature of language guides us almost infallibly in forming a judgment of this nature; and as every tongue possesses one set of words which are taken in a good sense, and another in the opposite, the least acquaintance with the idiom suffices, without any reasoning, to direct us in collecting and arranging the estimable or blamable qualities of men. The only object of reasoning is to discover the circumstances on both sides which are common to these qualities; to observe that particular in which the estimable qualities agree on the one hand, and the blamable on the other; and thence to reach the foundation of ethics, and find those universal principles from which all censure or approbation is ultimately derived. As this is a question of fact, not of abstract science, we can only expect success by following the experimental method, and deducing general maxims from a comparison of particular instances. The other scientific method, where a general abstract principle is first established and is afterwards branched out into a variety of inferences and conclusions, may be more perfect in itself, but suits less the imperfection of human nature, and is a common source of illusion and mistake in this as well as in other subjects. Men are now cured of their passion for hypotheses and systems in natural philosophy, and will hearken to no arguments but those which are derived from experience. It is full time they should attempt a like reformation in all moral disquisitions, and reject every system of ethics, however subtle or ingenious, which is not founded on fact and observation.

We shall begin our inquiry on this head by the consideration of the social virtues, benevolence and justice. The explication of them will probably give us an opening by which the others may be accounted for.

[†] See Appendix I.

SECTION II.

OF BENEVOLENCE

PART I.

It may be esteemed, perhaps, a superfluous task to prove that the benevolent or softer affections are estimable, and, wherever they appear, engage the approbation and goodwill of mankind. The epithets *sociable, good-natured, humane, merciful, grateful, friendly, generous, beneficent*, or their equivalents, are known in all languages, and universally express the highest merit which *human nature* is capable of attaining. Where these amiable qualities are attended with birth and power and eminent abilities, and display themselves in the good government or useful instruction of mankind, they seem even to raise the possessors of them above the rank of *human nature*, and make them approach in some measure to the divine. Exalted capacity, undaunted courage, prosperous success: these may only expose a hero or politician to the envy and ill-will of the public; but as soon as the praises are added of humane and beneficent; when instances are displayed of lenity, tenderness, or friendship; envy itself is silent, or joins the general voice of approbation and applause.

When Pericles, the great Athenian statesman and general, was on his death-bed, his surrounding friends, deeming him now insensible, began to indulge their sorrow for their expiring patron by enumerating his great qualities and successes, his conquests and victories, the unusual length of his administration, and his nine trophies erected over the enemies of the Republic. *You forget*, cries the dying hero, who had heard all, *you forget the most eminent of my praises, while you dwell so much on those vulgar advantages in which fortune had a principal share. You have not observed that no citizen has ever yet worn mourning on my account.*¹

In men of more ordinary talents and capacity, the social virtues become, if possible, still more essentially requisite;

there being nothing eminent in that case to compensate for the want of them, or preserve the person from our severest hatred as well as contempt. A high ambition, an elevated courage, is apt, says Cicero, in less perfect characters, to degenerate into a turbulent ferocity. The more social and softer virtues are there chiefly to be regarded. These are always good and amiable.²

The principal advantage which Juvenal discovers in the extensive capacity of the human species is that it renders our benevolence also more extensive, and gives us larger opportunities of spreading our kindly influence than what are indulged to the inferior creation.³ It must, indeed, be confessed that by doing good only can a man truly enjoy the advantages of being eminent. His exalted station of itself but the more exposes him to danger and tempest. His sole prerogative is to afford shelter to inferiors, who repose themselves under his cover and protection.

But I forget that it is not my present business to recommend generosity and benevolence, or to paint in their true colours all the genuine charms of the social virtues. These, indeed, sufficiently engage every heart on the first apprehension of them; and it is difficult to abstain from some sally of panegyric, as often as they occur in discourse or reasoning. But our object here being more the speculative than the practical part of morals, it will suffice to remark (what will readily, I believe, be allowed), that no qualities are more entitled to the general goodwill and approbation of mankind than beneficence and humanity, friendship and gratitude, natural affection and public spirit, or whatever proceeds from a tender sympathy with others and a generous concern for our kind and species. These, wherever they appear, seem to transfuse themselves, in a manner, into each beholder, and to call

¹ Plut., in *Pericle*.

² Cic., *De Officiis*, lib. i.

³ Sat. xv., 139 et. seq.

forth, in their own behalf, the same favourable and affectionate sentiments which they exert on all around.

PART II.

We may observe that in displaying the praises of any humane, beneficent man there is one circumstance which never fails to be amply insisted on—namely, the happiness and satisfaction derived to society from his intercourse and good offices. To his parents, we are apt to say, he endears himself by his pious attachment and duteous care still more than by the connections of nature. His children never feel his authority but when employed for their advantage. With him the ties of love are consolidated by beneficence and friendship. The ties of friendship approach, in a fond observance of each obliging office, to those of love and inclination. His domestics and dependants have in him a sure resource, and no longer dread the power of fortune but so far as she exercises it over him. From him the hungry receive food, the naked clothing, the ignorant and slothful skill and industry. Like the sun, an inferior minister of providence, he cheers, invigorates, and sustains the surrounding world.

If confined to private life, the sphere of his activity is narrower; but his influence is all benign and gentle. If exalted into a higher station, mankind and posterity reap the fruit of his labours.

As these topics of praise never fail to be employed, and with success, where we would inspire esteem for anyone, may it not thence be concluded that the utility resulting from the social virtues forms at least a *part* of their merit, and is one source of that approbation and regard so universally paid to them?

When we recommend even an animal or a plant as *useful* and *beneficial*, we give it an applause and recommendation suited to its nature; as, on the other hand, reflection on the baneful influence of any of these inferior beings always inspires us with the sentiment of aversion. The eye is pleased with the prospect of cornfields and loaded vineyards, horses grazing, and flocks pasturing; but flies the view of briars and brambles, affording shelter to wolves and serpents.

A machine, a piece of furniture, a vestment, a house well contrived for use and conveniency, is so far beautiful, and is

contemplated with pleasure and approbation. An experienced eye is here sensible to many excellences which escape persons ignorant and uninstructed.

Can anything stronger be said in praise of a profession, such as merchandise or manufacture, than to observe the advantages which it procures to society; and is not a monk and inquisitor enraged when we treat his order as useless or pernicious to mankind?

The historian exults in displaying the benefit arising from his labours. The writer of romance alleviates or denies the bad consequences ascribed to his manner of composition.

In general, what praise is implied in the simple epithet *useful*? What reproach in the contrary!

Your gods, says Cicero,¹ in opposition to the Epicureans, cannot justly claim any worship or adoration, with whatever imaginary perfections you may suppose them endowed. They are totally useless and inactive. Even the Egyptians, whom you so much ridicule, never consecrated any animal but on account of its utility.

The sceptics assert, though absurdly, that the origin of all religious worship was derived from the utility of inanimate objects, as the sun and moon, to the support and well-being of mankind. This is also the common reason assigned by historians for the dedication of eminent heroes and legislators.²

To plant a tree, to cultivate a field, to beget children: meritorious acts, according to the religion of Zoroaster.

In all determinations of morality this circumstance of public utility is ever principally in view; and wherever disputes arise, either in philosophy or common life, concerning the bounds of duty, the question cannot, by any means, be decided with greater certainty than by ascertaining, on any side, the true interests of mankind. If any false opinion, embraced from appearances, has been found to prevail, as soon as farther experience and sounder reasoning have given us juster notions of human affairs, we retract our first sentiment and adjust anew the boundaries of moral good and evil.

Giving alms to common beggars is naturally praised, because it seems to

¹ *De Nat. Deor.*, lib. i.

² *Sext. Emp. Adversus Math.*, lib. viii.

³ *Diod. Sic.*, passim.

carry relief to the distressed and indigent; but when we observe the encouragement thence arising to idleness and debauchery, we regard that species of charity rather as a weakness than a virtue.

Tyrannicide, or the assassination of usurpers and oppressive princes, was highly extolled in ancient times, because it both freed mankind from many of these monsters and seemed to keep the others in awe whom the sword and poniard could not reach. But, history and experience having since convinced us that this practice increases the jealousy and cruelty of princes, a Timoleon and a Brutus, though treated with indulgence on account of the prejudices of their times, are now considered as very improper models for imitation.

Liberality in princes is regarded as a mark of beneficence, but when it occurs that the homely bread of the honest and industrious is often thereby converted into delicious cakes for the idle and the prodigal, we soon retract our heedless praises. The regrets of a prince for having lost a day were noble and generous; but had he intended to have spent it in acts of generosity to his greedy courtiers, it was better lost than misemployed after that manner.

Luxury, or a refinement on the pleasures and conveniences of life, had not long been supposed the source of every corruption in government, and the immediate cause of faction, sedition, civil wars, and the total loss of liberty. It was, there-

fore, universally regarded as a vice, and was an object of declamation to all satirists and severe moralists. Those who prove, or attempt to prove, that such refinements rather tend to the increase of industry, civility, and arts regulate anew our *moral* as well as *political* sentiments, and represent as laudable or innocent what had formerly been regarded as pernicious and blamable.

Upon the whole, then, it seems undeniable that nothing can bestow more merit on any human creature than the sentiment of benevolence in an eminent degree; and that a *part* at least of its merit arises from its tendency to promote the interests of our species, and bestow happiness on human society. We carry our view into the salutary consequences of such a character and disposition; and whatever has so benign an influence, and forwards so desirable an end, is beheld with complacency and pleasure. The social virtues are never regarded without their beneficial tendencies, nor viewed as barren and unfruitful. The happiness of mankind, the order of society, the harmony of families, the mutual support of friends, are always considered as the result of their gentle dominion over the breasts of men.

How considerable a *part* of their merit we ought to ascribe to their utility will better appear from future disquisitions;¹ as well as the reason why this circumstance has such a command over our esteem and approbation.²

¹ Sect. III. and IV.

² Sect. V.

SECTION III.

OF JUSTICE

PART I.

THAT justice is useful to society, and consequently that *part* of its merit at least must arise from that consideration, it would be a superfluous undertaking to prove. That public utility is the *sole* origin of justice, and that reflections on the

beneficial consequences of this virtue are the *sole* foundation of its merit; this proposition, being more curious and important, will better deserve our examination and inquiry.

Let us suppose that nature has bestowed on the human race such *profuse abundance* of all *external* conveniences that without

any uncertainty in the event, without any care or industry on our part, every individual finds himself fully provided with whatever his most voracious appetites can want, or luxurious imagination wish or desire. His natural beauty, we shall suppose, surpasses all acquired ornaments; the perpetual clemency of the seasons renders useless all clothes or covering; the raw herbage affords him the most delicious fare, the clear fountain the richest beverage. No laborious occupation required, no tillage, no navigation. Music, poetry, and contemplation form his sole business; conversation, mirth, and friendship his sole amusement.

It seems evident that in such a happy state every other social virtue would flourish, and receive tenfold increase; but the cautious, jealous virtue of justice would never once have been dreamed of. For what purpose make a partition of goods where everyone has already more than enough? Why give rise to property where there cannot possibly be any injury? Why call this object *mine* when, upon the seizing of it by another, I need but stretch out my hand to possess myself of what is equally valuable? Justice in that case, being totally useless, would be an idle ceremonial, and could never possibly have place in the catalogue of virtues.

We see, even in the present necessitous condition of mankind, that wherever any benefit is bestowed by nature in an unlimited abundance we leave it always in common among the whole human race, and make no subdivisions of right and property. Water and air, though the most necessary of all objects, are not challenged as the property of individuals; nor can any man commit injustice by the most lavish use and enjoyment of these blessings. In fertile extensive countries, with few inhabitants, land is regarded on the same footing, and no topic is so much insisted on by those who defend the liberty of the seas as the unexhausted use of them in navigation. Were the advantages procured by navigation as inexhaustible, these reasoners had never had any adversaries to refute; nor had any claims ever been advanced of a separate, exclusive dominion over the ocean.

It may happen in some countries, at some periods, that there be established a property in water, none in land,* if the latter be in greater abundance than can

be used by the inhabitants, and the former be found with difficulty, and in very small quantities.

Again, suppose that, though the necessities of the human race continue the same as at present, yet the mind is so enlarged and so replete with friendship and generosity that every man has the utmost tenderness for every man, and feels no more concern for his own interest than for that of his fellows; it seems evident that the use of justice would in this case be suspended by such an extensive benevolence, nor would the divisions and barriers of property and obligation have ever been thought of. Why should I bind another by a deed or promise to do me any good office when I know that he is already prompted by the strongest inclination to seek my happiness, and would, of himself, perform the desired service; except the hurt he thereby receives be greater than the benefit accruing to me, in which case he knows that, from my innate humanity and friendship, I should be the first to oppose myself to his imprudent generosity? Why raise landmarks between my neighbour's field and mine when my heart has made no division between our interests, but shares all his joys and sorrows with the same force and vivacity as if originally my own? Every man, upon this supposition, being a second self to another, would trust all his interests to the discretion of every man, without jealousy, without partition, without distinction. And the whole human race would form only one family, where all would lie in common and be used freely without regard to property; but cautiously too, with as entire regard to the necessities of each individual as if our own interests were most intimately concerned.

In the present disposition of the human heart it would, perhaps, be difficult to find complete instances of such enlarged affections; but still we may observe that the case of families approaches towards it; and the stronger the mutual benevolence is among the individuals, the nearer it approaches, till all distinction of property be, in a great measure, lost and confounded among them. Between married persons the cement of friendship is by the laws supposed so strong as to abolish all division of possessions, and has often, in reality, the force ascribed to it. And it is observable that during the ardour of new enthusiasms, when every principle is inflamed into extravagance,

* *Genesius*, chap. xiii. and xxi.

the community of goods has frequently been attempted; and nothing but experience of its inconveniences, from the returning or disguised selfishness of men, could make the imprudent fanatics adopt anew the ideas of justice and of separate property. So true is it that this virtue derives its existence entirely from its necessary *use* to the intercourse and social state of mankind.

To make this truth more evident, let us reverse the foregoing suppositions, and, carrying everything to the opposite extreme, consider what would be the effect of these new situations. Suppose a society to fall into such want of all common necessities that the utmost frugality and industry cannot preserve the greater number from perishing, and the whole from extreme misery; it will readily, I believe, be admitted that the strict laws of justice are suspended in such a pressing emergency, and give place to the stronger motives of necessity and self-preservation. Is it any crime, after a shipwreck, to seize whatever means or instrument of safety one can lay hold of, without regard to former limitations of property? Or if a city besieged were perishing with hunger, can we imagine that men will see any means of preservation before them, and lose their lives from a scrupulous regard to what, in other situations, would be the rules of equity and justice? The use and tendency of that virtue is to procure happiness and security by preserving order in society: but where the society is ready to perish from extreme necessity no greater evil can be dreaded from violence and injustice, and every man may now provide for himself by all the means which prudence can dictate or humanity permit. The public, even in less urgent necessities, opens granaries without the consent of proprietors, as justly supposing that the authority of magistracy may, consistent with equity, extend so far; but were any number of men to assemble without the tie of laws or civil jurisdiction, would an equal partition of bread in a famine, though effected by power and even violence, be regarded as criminal or injurious?

Suppose likewise that it should be a virtuous man's fate to fall into the society of ruffians, remote from the protection of laws and government; what conduct must he embrace in that melancholy situation? He sees such a desperate

rapaciousness prevail, such a disregard to equity, such contempt of order, such stupid blindness to future consequences, as must immediately have the most tragical conclusion, and must terminate in destruction to the greater number, and in a total dissolution of society to the rest. He, meanwhile, can have no other expedient than to arm himself, to whom ever the sword he seizes, or the buckler, may belong; to make provision of all means of defence and security; and, his particular regard to justice being no longer of use to his own safety or that of others, he must consult the dictates of self-preservation alone, without concern for those who no longer merit his care and attention.

When any man, even in political society, renders himself by his crimes obnoxious to the public, he is punished by the laws in his goods and person—that is, the ordinary rules of justice are, with regard to him, suspended for a moment, and it becomes equitable to inflict on him, for the *benefit* of society, what otherwise he could not suffer without wrong or injury.

The rage and violence of public war—what is it but a suspension of justice among the warring parties, who perceive that this virtue is now no longer of any *use* or advantage to them? The laws of war, which then succeed to those of equity and justice, are rules calculated for the *advantage* and *utility* of that particular state in which men are now placed. And were a civilised nation engaged with barbarians, who observed no rules even of war, the former must also suspend their observance of them, where they no longer serve to any purpose, and must render every action or rencounter as bloody and pernicious as possible to the first aggressors.

Thus, the rules of equity or justice depend entirely on the particular state and condition in which men are placed, and owe their origin and existence to that utility which results to the public from their strict and regular observance. Reverse, in any considerable circumstance, the condition of men; produce extreme abundance or extreme necessity; implant in the human breast perfect moderation and humanity, or perfect rapaciousness and malice: by rendering justice totally *useless*, you thereby totally destroy its essence, and suspend its obligation upon mankind.

The common situation of society is a medium amidst all these extremes. We are naturally partial to ourselves and to our friends, but are capable of learning the advantage resulting from a more equitable conduct. Few enjoyments are given us from the open and liberal hand of nature; but by art, labour, and industry we can extract them in great abundance. Hence the ideas of property become necessary in all civil society; hence justice derives its usefulness to the public; and hence alone arises its merit and moral obligation.

These conclusions are so natural and obvious that they have not escaped even the poets in their descriptions of the felicity attending the golden age or the reign of Saturn. The seasons, in that first period of nature, were so temperate, if we credit these agreeable fictions, that there was no necessity for men to provide themselves with clothes and houses as a security against the violence of heat and cold; the rivers flowed with wine and milk; the oaks yielded honey, and nature spontaneously produced her greatest delicacies. Nor were these the chief advantages of that happy age. Tempests were not alone removed from nature, but those more furious tempests were unknown to human breasts which now cause such uproar and engender such confusion. Avarice, ambition, cruelty, selfishness, were never heard of; cordial affection, compassion, sympathy, were the only movements with which the mind was yet acquainted. Even the punctilious distinction of *mine* and *thine* was banished from among the happy race of mortals, and carried with it the very notion of property and obligation, justice and injustice.

This poetical fiction of the golden age is in some respects of a piece with the philosophical fiction of the state of nature; only that the former is represented as the most charming and most peaceable condition which can possibly be imagined, whereas the latter is painted out as a state of mutual war and violence, attended with the most extreme necessity. On the first origin of mankind, we are told, their ignorance and savage nature were so prevalent that they could give no mutual trust, but must each depend upon himself and his own force or cunning for protection and security. No law was heard of; no rule of justice known; no distinction of property regarded; power was the only measure of right; and a perpetual

war of all against all was the result of men's untamed selfishness and barbarity.*

Whether such a condition of human nature could ever exist, or, if it did, could continue so long as to merit the appellation of a *state*, may justly be doubted. Men are necessarily born in a family-society at least, and are trained up by their parents to some rule of conduct and behaviour. But this must be admitted, that, if such a state of mutual war and violence was ever real, the suspension of all laws of justice, from their absolute inutility, is a necessary and infallible consequence.

The more we vary our views of human life, and the newer and more unusual the lights are in which we survey it, the more shall we be convinced that the origin here assigned for the virtue of justice is real and satisfactory.

Were there a species of creatures intermingled with men, which, though rational, were possessed of such inferior strength, both of body and mind, that they were incapable of all resistance, and could never, upon the highest provocation, make us feel the effects of their resentment; the necessary consequence, I think, is that we should be bound by the laws of humanity to give gentle usage to these creatures, but should not, properly speaking, lie under any restraint of justice with regard to them, nor could they possess any right or property, exclusive of such arbitrary lords. Our intercourse with them could not be called society, which supposes a degree of equality; but absolute command on the

* This fiction of a state of nature as a state of war was not first started by Mr. Hobbes, as is commonly imagined. Plato endeavours to refute an hypothesis very like it in the second, third, and fourth books *De Republica*. Cicero, on the contrary, supposes it certain and universally acknowledged in the following passage: "Quis enim vestrum, iudices, ignorat, ita naturam rerum tulisse, ut quodam tempore homines, nondum neque naturali neque civili jure descripti, fusi per aëres ac dispersi vagarentur tantumque haberent quantum manu ac viribus, per eadem ac vulnera, nec eripere aut retinere possent? Qui igitur primi virtute et consilio præstanti extiterint, in prospectu genere humane docilitatis atque ingenii, dissipatos unum in locum congregarunt, eosque ex feritate illa ad justitiam ac mansuetudinem transduxerunt. Tum res ad communem utilitatem, quas publicas appellamus, tum conventicula hominum, quae postea civitates nominatae sunt, tum domicilia conjuncta, quas urbes dicimus, invento et divino et humano jure moenibus separavit. Atque inter hanc vitam, perpolitum humanitatem, et illam inhumanam, nihil tam interest quam *JUS* atque *VIS*. Horum utro uti nolimus, altero est utendum. Vim volumus extingui. Jus valeat necesse est, id est, judicia, quibus omne jus continetur. Judicia displicunt, aut nulla sunt. Vis dominetur necesse est. Haec vident omnes." *Pro Sexto*, § 42.

one side, and servile obedience on the other. Whatever we covet, they must instantly resign. Our permission is the only tenure by which they hold their possessions, our compassion and kindness the only check by which they curb our lawless will; and as no inconvenience ever results from the exercise of a power so firmly established in nature, the restraints of justice and property, being totally *useless*, would never have place in so unequal a confederacy.

This is plainly the situation of men with regard to animals; and how far these may be said to possess reason I leave it to others to determine. The great superiority of civilised Europeans above barbarous Indians tempted us to imagine ourselves on the same footing with regard to them, and made us throw off all restraints of justice, and even of humanity, in our treatment of them. In many nations the female sex are reduced to like slavery, and are rendered incapable of all property in opposition to their lordly masters. But though the males, when united, have in all countries bodily force sufficient to maintain this severe tyranny, yet such are the insinuation, address, and charms of their fair companions that women are commonly able to break the confederacy and share with the other sex in all the rights and privileges of society.

Were the human species so framed by nature that each individual possessed within himself every faculty requisite both for his own preservation and for the propagation of his kind; were all society and intercourse cut off between man and man by the primary intention of the Supreme Creator, it seems evident that so solitary a being would be as much incapable of justice as of social discourse and conversation. Where mutual regards and forbearance serve to no manner of purpose, they would never direct the conduct of any reasonable man. The headlong course of the passions would be checked by no reflection on future consequences. And as each man is here supposed to love himself alone, and to depend only on himself and his own activity for safety and happiness, he would on every occasion, to the utmost of his power, challenge the preference above every other being, to none of which he is bound by any ties either of nature or interest.

But suppose the conjunction of the

sexes to be established in nature, a family immediately arises, and, particular rules being found requisite for its subsistence, these are immediately embraced, though without comprehending the rest of mankind within their prescriptions. Suppose that several families unite together into one society, which is totally disjoined from all others, the rules which preserve peace and order enlarge themselves to the utmost extent of that society, but, becoming then entirely useless, lose their force when carried one step farther. But, again, suppose that several distinct societies maintain a kind of intercourse for mutual convenience and advantage, boundaries of justice still grow larger in proportion to the largeness of men's views and the force of their mutual connections. History, experience, reason, sufficiently instruct us in this natural progress of human sentiments, and in the gradual enlargement of our regards to justice in proportion as we become acquainted with the extensive utility of that virtue.

PART II.

If we examine the *particular* laws by which justice is directed and property determined, we shall still be presented with the same conclusion. The good of mankind is the only object of all these laws and regulations. Not only is it requisite for the peace and interest of society that men's possessions should be separated, but the rules which we follow in making the separation are such as can best be contrived to serve farther the interests of society.

We shall suppose that a creature, possessed of reason, but unacquainted with human nature, deliberates with himself what rules of justice or property would best promote public interest and establish peace and security among mankind. His most obvious thought would be to assign the largest possessions to the most extensive virtue, and give every one the power of doing good, proportioned to his inclination. In a perfect theocracy, where a being infinitely intelligent governs by particular volitions, this rule would certainly have place, and might serve to the wisest purposes. But were mankind to execute such a law, so great is the uncertainty of merit, both from its natural obscurity and from the self-conceit of each individual, that no determinate rule of conduct would ever

result from it, and the total dissolution of society must be the immediate consequence. Fanatics may suppose that *dominion is founded on grace*, and that *saints alone inherit the earth*; but the civil magistrate very justly puts these sublime theorists on the same footing with common robbers, and teaches them by the severest discipline that a rule which, in speculation, may seem the most advantageous to society may yet be found, in practice, totally pernicious and destructive.

That there were *religious* fanatics of this kind in England during the Civil Wars we learn from history, though it is probable that the obvious *tendency* of these principles excited such horror in mankind as soon obliged the dangerous enthusiasts to renounce, or at least conceal, their tenets. Perhaps the *Levellers*, who claimed an equal distribution of property, were a kind of *political* fanatics, which arose from the religious species, and more openly avowed their pretensions, as carrying a more plausible appearance of being practicable in themselves as well as useful to human society.

It must, indeed, be confessed that nature is so liberal to mankind that, were all her presents equally divided among the species and improved by art and industry, every individual would enjoy all the necessities and even most of the comforts of life, nor would ever be liable to any ill but such as might accidentally arise from the sickly frame and constitution of his body. It must also be confessed that wherever we depart from this equality we rob the poor of more satisfaction than we add to the rich, and that the slight gratification of a frivolous vanity in one individual frequently costs more than bread to many families, and even provinces. It may appear withal that the rule of equality, as it would be highly *useful*, is not altogether *impracticable*, but has taken place, at least in an imperfect degree, in some republics, particularly that of Sparta, where it was attended, it is said, with the most beneficial consequences. Not to mention that the agrarian laws, so frequently claimed in Rome, and carried into execution in many Greek cities, proceeded, all of them, from a general idea of the utility of this principle.

But historians, and even common sense, may inform us that, however specious these ideas of *perfect equality*

may seem, they are really at bottom *impracticable*, and, were they not so, would be extremely *pernicious* to human society. Render possessions ever so equal, men's different degrees of art, care, and industry will immediately break that equality. Or, if you check these virtues, you reduce society to the most extreme indigence, and, instead of preventing want and beggary in a few, render it unavoidable to the whole community. The most rigorous inquisition, too, is requisite to watch every inequality on its first appearance, and the most severe jurisdiction to punish and redress it. But, besides that so much authority must soon degenerate into tyranny, and be exerted with great partialities, who can possibly be possessed of it in such a situation as is here supposed? Perfect equality of possessions, destroying all subordination, weakens extremely the authority of magistracy, and must reduce all power nearly to a level, as well as property.

We may conclude, therefore, that in order to establish laws for the regulation of property we must be acquainted with the nature and situation of man, must reject appearances, which may be false though specious, and must search for those rules which are on the whole most *useful* and *beneficial*. Vulgar sense and slight experience are sufficient for this purpose, where men give not way to too selfish avidity or too extensive enthusiasm.

Who sees not, for instance, that whatever is produced or improved by a man's art or industry ought for ever to be secured to him, in order to give encouragement to such *useful* habits and accomplishments; that the property ought also to descend to children and relations for the same *useful* purpose; that it may be alienated by consent in order to beget that commerce and intercourse which is so *beneficial* to human society; and that all contracts and promises ought carefully to be fulfilled, in order to secure mutual trust and confidence, by which the general *interest* of mankind is so much promoted?

Examine the writers on the laws of nature, and you will always find that, whatever principles they set out with, they are sure to terminate here at last, and to assign as the ultimate reason for every rule which they establish the convenience and necessities of mankind. A concession thus extorted in opposition to

Those who ridicule vulgar superstitions, and expose the folly of particular regards to meats, days, places, postures, apparel, have an easy task while they consider all the qualities and relations of the objects, and discover no adequate cause for that affection or antipathy, veneration or horror, which have so mighty an influence over a considerable part of mankind. A Syrian would have starved rather than taste pigeon, an Egyptian would not have approached bacon. But if these species of food be examined by the senses of sight, smell, or taste, or scrutinised by the sciences of chemistry, medicine, or physics, no difference is ever found between them and any other species, nor can that precise circumstance be pitched on which may afford a just foundation for the religious pass on. A fowl on Thursday is lawful food, on Friday, abominable. Eggs in the house and in this diocese are permitted during Lent, a hundred paces further, to eat them is a damnable sin. This earth or building yesterday was profane; to-day, by the muttering of certain words, it has become holy and sacred. Such reflections as these, in the mouth of a philosopher, one may safely say, are too obvious to have any influence, because they must always, to every man, occur at first sight, and where they prevail not of themselves they are surely obstructed by education, prejudice, and passion, not by ignorance or mistake.

It may appear to a careless view, or rather a too abstracted reflection, that there enters a like superstitiousness into all the sentiments of justice and that, if a man expose its object, or what we call property, to the same scrutiny of sense and science, he will not, by the most veritate inquiry, find any foundation for the difference made by moral sentiment. I may lawfully nourish myself from this tree, but the fruit of another of the same species, ten paces off, it is criminal for me to touch. Had I won this apparel an hour ago, I had merited the severest punishment; but a man, by pronouncing a few magical syllables, has now rendered it fit for my use and service. Were this house placed in the neighbouring territory, it had been immoral for me to dwell in it; but, being built on this side the river, it is subject to a different municipal law, and by its becoming mine I incur no blame or censure. The same species of reasoning, it may be thought, which so successfully exposes superstition is also

applicable to justice; nor is it possible, in the one case more than in the other, to point out in the object that precise quality or circumstance which is the foundation of the sentiment.

But there is this material difference between *superstition* and *justice* that the former is frivolous, useless, and burdensome, the latter is absolutely requisite to the well-being of mankind and existence of society. When we abstract from this circumstance (for it is too apparent ever to be overlooked), it must be confessed that all regards to right and property seem entirely without foundation, as much as the grossest and most vulgar superstition. Were the interests of society nowise concerned, it is as unintelligible why another's articulation of certain sounds implying consent should change the nature of my actions with regard to a particular object as why the reciting of a liturgy by a priest, in a certain habit and posture, should dedicate a heap of brick and timber, and render it, thenceforth and for ever, sacred.

It is evident that the will or consent alone never transfers property nor causes the obligation of a promise (or the same reasoning extends to both), but the will must be expressed by words or signs in order to compose the promise. The expression being once brought in, a subsequent will soon becomes the purport of the promise. I will a man, I am bound by his word though he afterwards give a different direction to his intention, and will hold the rest of his mind. But though this expression makes, on most occasions, the whole of the promise, yet it is not always so in those who should make use of an expression of which he knows not the meaning, and which he uses without any sense of the consequence. I would not certainly be bound by it. Nay, though I know its meaning, yet if I use it in jest only, or if such signs as a lady's wish that her husband is intention of leaving him, if he would not be under any obligation of performance, but it is necessary that we should be careful to use the will without any contrary sign. Nay, even this we must not carry so far as to imagine that on whom, by our quickness of understanding, we can deduce from certain signs a latent intention of deceiving us, is not bound by his expression or outward promise if we accept of it, but must limit this consent to those cases where the signs are of a different nature from those of deceit. All the contributions are easily a contradiction if produced entirely from its own nature to satisfy but will never be applied on any other hypothesis. It is remarkable that the moral lessons of the *Jeûs* and other religiousists were commonly founded upon the use of such subtleties of reasoning as here proposed. It is so peculiarly much from the habit of such fastidious refinement as from any corruption of the heart. A very may follow the authority of Mon. Bayle. See his *De l'opinion* article "Loyola." And why he thus indulges in so much tenderness so high against these is easily to be seen. Everyone perceived that human society could not subsist were such practices authorised and that it is must always be handled with a view to prevent more than philosophical regularity. If the secret direction of the intention, and every man's consent could invalidate a contract, where is our security? And yet a metaphysical school in might think that where an intention was supposed

These reflections are far from weakening the obligations of justice, or diminishing anything from the most sacred attention to property. On the contrary, such sentiments must acquire new force from the present reasoning. For what stronger foundation can be desired or conceived for any duty than to observe that human society, or even human nature, could not subsist without the establishment of it, and will still arrive at greater degrees of happiness and perfection the more inviolable the regard is which is paid to that duty?

The dilemma seems obvious. As justice evidently tends to promote public utility and to support civil society, the sentiment of justice is either derived from our reflecting on that tendency, or like hunger, thirst, and other appetites, resentment, love of life, attachment to offspring, and other passions—arises from a simple original instinct in the human breast which nature has implanted for like salutary purposes. If the latter be the case, it follows that property, which is the object of justice, is also distinguished by a simple original instinct, and is not ascertained by any argument or reflection. But who is there that ever heard of such an instinct? Or is this a subject in which new discoveries can be made? We may as well expect to discover in the body new senses which had before escaped the observation of all mankind.

But, further, though it seems a very simple proposition to say that nature by an instinctive sentiment distinguishes property, yet in reality we shall find that there are required for that purpose ten thousand different instincts, and these

employed about objects of the greatest intricacy and nicest discernment. For when a definition of *property* is required, that relation is found to resolve itself into any possession acquired by occupation, by industry, by prescription, by inheritance, by contract, etc. Can we think that nature, by an original instinct, instructs us in all these methods of acquisition?

These words, too, "inheritance" and "contract," stand for ideas infinitely complicated; and to define them exactly a hundred volumes of laws and a thousand volumes of commentators have not been found sufficient. Does nature, whose instincts in men are all simple, embrace such complicated and artificial objects, and create a rational creature without trusting anything to the operation of his reason?

But even though all this were admitted, it would not be satisfactory. Positive laws can certainly transfer property. Is it by another original instinct that we recognise the authority of kings and senates, and mark all the boundaries of their jurisdiction? Judges, too, even though their sentence be erroneous and illegal, must be allowed, for the sake of peace and order, to have decisive authority, and ultimately to determine property. Have we original, innate ideas of pretors and chancellors and juries? Who sees not that all these institutions arise merely from the necessities of human society?

All birds of the same species in every age and country built their nests alike. In this we see the force of instinct. Men in different times and places frame their houses differently. Here we perceive the influence of reason and custom. A like inference may be drawn from comparing the instinct of generation and the institution of property.

How great soever the variety of municipal laws, it must be confessed that their chief outlines pretty regularly concur, because the purposes to which they tend are everywhere exactly similar. In like manner, all houses have a roof and walls, windows and chimneys, though diversified in their shape, figure, and materials. The purposes of the latter, directed to the conveniences of human life, discover not more plainly their origin from reason and reflection than do those of the former, which point all to a like end.

I need not mention the variations which all the rules of property receive from the finer turns and connections of the

to be requisite, if that intention really had not place, no consequence ought to follow, and no obligation be imposed. The casuistical subtleties may not be greater than the subtleties of lawyers, hinted at above; but as the former are *pernicious*, and the latter *innocent* and even *necessary*, this is the reason of the very different reception they meet with from the world. It is a doctrine of the Church of Rome that the priest, by a secret direction of his intention, can invalidate any sacrament. This position is derived from a strict and regular prosecution of the obvious truth that empty words alone, without any meaning or intention in the speaker, can never be attended with any effect. If the same conclusion be not admitted in reasonings concerning civil contracts, where the affair is allowed to be of so much less consequence than the eternal salvation of thousands, it proceeds entirely from men's sense of the danger and inconvenience of the doctrine in the former case. And we may thence observe that, however positive, arrogant, and dogmatical any supererogation may appear, it never can convey any thorough persuasion of the reality of its objects, or put them, in any degree, on a balance with the common incidents of life, which we learn from daily observation and experimental reasoning.

imagination, and from the subtleties and abstractions of law topics and reasonings. There is no possibility of reconciling this observation to the notion of original instincts.

What alone will beget a doubt concerning the theory on which I insist is the influence of education and acquired habits, by which we are so accustomed to blame injustice that we are not, in every instance, conscious of any immediate reflection on the pernicious consequences of it. The views the most familiar to us are apt, for that very reason, to escape us; and what we have very frequently performed from certain motives we are apt likewise to continue mechanically, without recalling on every occasion the reflections which first determined us. The convenience, or rather necessity, which leads to justice is so universal, and everywhere points so much to the same rules, that the habit takes place in all societies, and it is not without some scrutiny that we are able to ascertain its true origin. The matter, however, is not so obscure but that even in common life we have every moment recourse to the principle of public utility, and ask: *What must become of the world if such practices prevail? How could society subsist under such disorders?* Were the distinction or separation of possessions

entirely useless, can anyone conceive that it ever should have obtained in society?

Thus we seem, upon the whole, to have attained a knowledge of the force of that principle here insisted on, and can determine what degree of esteem or moral approbation may result from reflections on public interest and utility. The necessity of justice to the support of society is the sole foundation of that virtue; and since no moral excellence is more highly esteemed, we may conclude that this circumstance of usefulness has in general the strongest energy and most entire command over our sentiments. It must, therefore, be the source of a considerable part of the merit ascribed to humanity, benevolence, friendship, public spirit, and other social virtues of that stamp; as it is the sole source of the moral approbation paid to fidelity, justice, veracity, integrity, and those other estimable and useful qualities and principles. It is entirely agreeable to the rules of philosophy, and even of common reason, where any principle has been found to have a great force and energy in one instance, to ascribe to it a like energy in all similar instances. This, indeed, is Newton's chief rule of philosophising.¹

¹ *Principia*, Lib. iii.

SECTION IV.

OF POLITICAL SOCIETY

HAD every man sufficient *sagacity* to perceive at all times the strong interest which binds him to the observance of justice and equity, and *strength of mind* sufficient to persevere in a steady adherence to a general and a distant interest in opposition to the allurements of present pleasure and advantage, there had never, in that case, been any such thing as government or political society, but each man, following his natural liberty, had lived in entire peace and harmony with all others. What need of positive law where natural justice

is, of itself, a sufficient restraint? Why create magistrates where there never arises any disorder or iniquity? Why abridge our native freedom when, in every instance, the utmost exertion of it is found innocent and beneficial? It is evident that, if government were totally useless, it never could have place, and that the sole foundation of the duty of allegiance is the *advantage* which it procures to society by preserving peace and order among mankind.

When a number of political societies

Those who live in the same family have such frequent opportunities of licence of this kind that nothing could prevent impurity of manners, were marriage allowed among the nearest relations, or any intercourse of love between them ratified by law and custom. Incest, therefore being *pernicious* in a superior degree, it is also a superior turpitude and moral deformity annexed to it.

What is the reason why, by the Athenian laws, one might marry a half-sister by the father, but not by the mother? Plainly this—the manners of the Athenians were so reserved that a man was never permitted to approach the women's apartment, even in the same family miles, where he visited his own mother. His step-mother and her children were as much shut up from him as the woman of any other family and there was as little danger of any criminal correspondence between them. Uncles and nieces for a like reason, might marry at Athens; but neither these nor half brothers and sisters could contract that alliance at Rome where the intercourse was more open between the sexes. Public morality is the cause of all these variations.

To repeat to a man's prejudice anything that escaped him in private conversation, or to make any such use of his private letters is highly blamed. The free and secret intercourse of minds must be extremely checked where no such rules of fidelity are established.

Even in repeating stories, whence we can foresee no ill consequences to result, the giving of one's author is reckoned as a piece of indiscretion if not of immorality. These stories, in passing from hand to hand, and receiving all the usual variations, frequently come about to the persons concerned, and produce animosities and quarrels among people whose intentions are the most innocent and inoffensive.

To pry into secrets, to open or even read the letters of others, to play the spy upon their words and looks and actions, what habits more inconvenient in society? What habits of consequence more blamable?

This principle is also the foundation of most of the laws of good manners, a kind of lesser morality, calculated for the ease of company and conversation. Too much or too little ceremony are both blamed, and everything which promotes ease without an indecent familiarity is useful and laudable.

Constancy in friendships, attachments, and familiarities is commendable and is requisite to support true and good correspondence in society. But in places of general though casual concourse, where the pursuit of health and pleasure brings people promiscuously together, public convenience has dispensed with this maxim, and custom there promotes an unreserved conversation for the time by indulging the privilege of dropping afterwards every indifferant acquaintance without breach of civility or good manners.

Even in societies which are established on principles the most immoral and the most destructive to the interests of the general society, there are required certain rules, which a species of false honour, as well as private interest, engages the members to observe. Robbers and pirates, it has often been remarked, could not maintain their pernicious confederacy did they not establish a new distributive justice among themselves, and recall those laws of equity which they have violated with the rest of mankind.

I hate a drunken companion, says the Greek proverb, who never forgets. The follies of the last ditch should be buried in eternal oblivion in order to give full scope to the follies of the next.

Among nations where an immoral intimacy is covered with a thin veil of mystery, is in some degree authorized by custom, they immediately rise a set of rules calculated for the convenience of that attachment. The French court of parliament at Love in Provence formerly decided all difficult cases of his nature.

In societies for play there are laws required for the conduct of the game, and these laws are different in every game. The foundation of even of such societies is frivolous, and the law, in a great measure though not altogether, capricious and arbitrary. So far is there a material difference betwixt them and the rules of justice, fidelity and loyalty. The general doctrine of men are absolutely requisite for the subsistence of the species; and the public convenience which regulates morals, is inevitably established in the nature of mankind of the world in which he lives. The comparison, therefore, in these respects, is very imperfect. We may only learn from it the necessity of rules wherever men have any intercourse with each other.

They cannot even pass each other on

the road without rules. Waggoners, coachmen, and postilions have principles by which they give the way, and these are chiefly founded on mutual ease and convenience. Sometimes also they are arbitrary—at least, dependent on a kind of capricious analogy, like many of the reasonings of lawyers.¹

To carry the matter farther, we may observe that it is impossible for men so

much as to murder each other without statutes and maxims, and an idea of justice and honour. War has its laws as well as peace; and even that sportive kind of war carried on among wrestlers, boxers, cudgel-players, gladiators, is regulated by fixed principles. Common interest and utility beget infallibly a standard of right and wrong among the parties concerned.

¹ That the lighter machine yield to the heavier, and, in machines of the same kind, that the empty yield to the loaded: this rule is founded on convenience. That those who are going to the capital take place of those who are coming from it: this seems to be founded on some idea of the dignity of the great city, and of the preference of the future to the past. From like reasons, among foot-walkers the right hand entitles a man to the wall, and prevents jostling, which peaceable people find very disagreeable and inconvenient.

SECTION V.

WHY UTILITY PLEASES

PART I.

It seems so natural a thought to ascribe to their utility the praise which we bestow on the social virtues that one would expect to meet with this principle everywhere in moral writers as the chief foundation of their reasoning and inquiry. In common life we may observe that the circumstance of utility is always appealed to; nor is it supposed that a greater eulogy can be given to any man than to display his usefulness to the public and enumerate the services which he has performed to mankind and society. What praise, even of an inanimate form, if the regularity and elegance of its parts destroy not its fitness for any useful purpose! And how satisfactory an apology for any disproportion or seeming deformity if we can show the necessity of that particular construction for the use intended! A ship appears more beautiful to an artist, or one moderately skilled in navigation, where its prow is wide and swelling beyond its poop, than if it were framed with a precise geometrical regularity, in contradiction to all the laws of mechanics. A building whose doors and windows were exact squares would hurt the eye by that very proportion, as ill adapted to the figure of

a human creature, for whose service the fabric was intended. What wonder, then, that a man whose habits and conduct are hurtful to society and dangerous or pernicious to everyone who has an intercourse with him, should on that account be an object of disapprobation, and communicate to every spectator the strongest sentiment of disgust and hatred.¹

But perhaps the difficulty of accounting

¹ We ought not to imagine, because an inanimate object may be useful as well as a man, that therefore it ought also, according to this system, to merit the appellation of *virtuous*. The sentiments excited by utility are in the two cases very different; and the one is mixed with affection, esteem, approbation, etc., and not the other. In like manner, an inanimate object may have good colour and proportions as well as a human figure. But can we ever be in love with the former? There are a numerous set of passions and sentiments of which thinking, rational beings are, by the original constitution of nature, the only proper objects; and though the very same qualities be transferred to an insensible, inanimate being, they will not excite the same sentiments. The beneficial qualities of herbs and minerals are, indeed, sometimes called their *virtues*, but this is an effect of the caprice of language which ought not to be regarded in reasoning. For though there be a species of approbation attending even inanimate objects when beneficial, yet this sentiment is so weak and so different from that which is directed to beneficent magistrates or statesmen that they ought not to be ranked under the same class or appellation. A very small variation of the object, even where the same qualities are preserved, will destroy a sentiment. Thus the same beauty transferred to a different sex excites no amorous passion where nature is not extremely perverted.

for these effects of usefulness, or its contrary, has kept philosophers from admitting them into their systems of ethics, and has induced them rather to employ any other principle in explaining the origin of moral good and evil. But it is no just reason for rejecting any principle confirmed by experience that we cannot give a satisfactory account of its origin, nor are able to resolve it into other more general principles. And if we would employ a little thought on the present subject, we need be at no loss to account for the influence of utility, and to deduce it from principles the most known and avowed in human nature.

From the apparent usefulness of the social virtues it has readily been inferred by sceptics, both ancient and modern, that all moral distinctions arise from education, and were at first invented, and afterwards encouraged, by the art of politicians, in order to render men tractable and subdue their natural ferocity and selfishness, which incapacitated them for society. This principle, indeed, of precept and education must so far be owned to have a powerful influence that it may frequently increase or diminish beyond their natural standard the sentiments of approbation or dislike, and may even, in particular instances, create, without any natural principle, a new sentiment of this kind, as is evident in all superstitious practices and observances; but that *all* moral affection or dislike arises from this origin will never surely be allowed by any judicious inquirer. Had nature made no such distinction, founded on the original constitution of the mind, the words *honourable* and *shameful*, *lovely* and *odious*, *noble* and *despicable*, had never had place in any language; nor could politicians, had they invented these terms, ever have been able to render them intelligible, or make them convey any idea to the audience. So that nothing can be more superficial than this paradox of the sceptics; and it were well if, in the abstruser studies of logic and metaphysics, we could as easily obviate the cavils of that sect as in the practical and more intelligible sciences of politics and morals.

The social virtues must, therefore, be allowed to have a natural beauty and amiableness, which at first, antecedent to all precept or education, recommends them to the esteem of uninstructed mankind and engages their affections. And

as the public utility of these virtues is the chief circumstance whence they derive their merit, it follows that the end which they have a tendency to promote must be some way agreeable to us, and take hold of some natural affection. It must please, either from considerations of self-interest or from more generous motives and regards.

It has often been asserted that as every man has a strong connection with society, and perceives the impossibility of his solitary subsistence, he becomes on that account favourable to all those habits or principles which promote order in society and insure to him the quiet possession of so inestimable a blessing. As much as we value our own happiness and welfare, as much must we applaud the practice of justice and humanity, by which alone the social confederacy can be maintained and every man reap the fruits of mutual protection and assistance.

This deduction of morals from self-love or a regard to private interest is an obvious thought, and has not arisen wholly from the wanton sallies and sportive assaults of the sceptics. To mention no others, Polybius, one of the gravest and most judicious as well as most moral writers of antiquity, has assigned this selfish origin to all our sentiments of virtue.¹ But, though the solid practical sense of that author and his aversion to all vain subtleties render his authority on the present subject very considerable, yet is not this an affair to be decided by authority, and the voice of nature and experience seems plainly to oppose the selfish theory.

We frequently bestow praise on virtuous actions performed in very distant ages and remote countries, where the utmost subtlety of imagination would not discover any appearance of self-interest, or find any connection of our present happiness and security with events so widely separated from us.

A generous, a brave, a noble deed

¹ Undutifulness to parents is disapproved of by mankind, *προσφιλόμενος τὸ μέλλον, καὶ συλλογιζόμενος* ὅτι τὸ παραπλήσιον ἐκείνους αὐτῶν συγκυρήσει. Ingratitude, for a like reason (though he seems there to mix a more generous regard), *ἀνταρπακτὸν μὲν τῷ πένει, ἀναφύοντα δ' ἐπ' αὐτοῖς τὸ παραπλήσιον, ἐξ ὧν ὑπογίγνεται τις ἔννοια παρ' ἐκάστῳ τῇ τοῦ καθήκοντος δυνάμει καὶ θεωρίας*. Lib. vi., cap. 4, ed. Gronovius. Perhaps the historian only meant that our sympathy and humanity was more enlivened by our considering the similarity of our case with that of the person suffering; which is a just sentiment.

performed by an adversary commands our approbation; while in its consequences it may be acknowledged prejudicial to our particular interest.

Where private advantage concurs with general affection for virtue we readily perceive and avow the mixture of these distinct sentiments, which have a very different feeling and influence on the mind. We praise perhaps with more alacrity where the generous, humane action contributes to our particular interest. But the topics of praise which we insist on are very wide of this circumstance. And we may attempt to bring over others to our sentiments without endeavouring to convince them that they reap any advantage from the actions which we recommend to their approbation and applause.

Frame the model of a praiseworthy character, consisting of all the most amiable moral virtues. Give instances in which these display themselves after an eminent and extraordinary manner. You readily engage the esteem and approbation of all your audience, who never so much as inquire in what age and country the person lived who possessed these noble qualities - a circumstance, however, of all others the most material to self-love or a concern for our own individual happiness.

Once on a time a statesman in the shock and contest of parties prevailed so far as to procure by his eloquence the banishment of an able adversary, whom he secretly followed, offering him money for his support during his exile and soothing him with topics of consolation in his misfortunes. *Alas!* cries the banished statesman, *with what regret must I leave my friends in this city, where even enemies are so generous!* Virtue, though in an enemy, here pleased him. And we also give it the just tribute of praise and approbation; nor do we retract these sentiments when we hear that the action passed at Athens about two thousand years ago, and that the persons' names were Eschines and Demosthenes.

What is that to me? There are few occasions when this question is not pertinent, and had it that universal, infallible influence supposed, it would turn into ridicule every composition and almost every conversation which contain any praise or censure of men and manners.

It is but a weak subterfuge, when pressed by these facts and arguments, to

say that we transport ourselves by the force of imagination into distant ages and countries, and consider the advantage which we should have reaped from these characters had we been contemporaries and had any commerce with the persons. It is not conceivable how a *real* sentiment or passion can ever arise from a known *imaginary* interest, especially when our *real* interest is still kept in view, and is often acknowledged to be entirely distinct from the imaginary, and even sometimes opposite to it.

A man brought to the brink of a precipice cannot look down without trembling, and the sentiment of *imaginary* danger actuates him in opposition to the opinion and belief of *real* safety. But the imagination is here assisted by the presence of a striking object, and yet prevails not, except it be also aided by novelty and the unusual appearance of the object. Custom soon reconciles us to heights and precipices, and weurs off these false and delusive terrors. The reverse is observable in the estimates which we form of characters and manners; and the more we habituate ourselves to an accurate scrutiny of morals the more delicate feeling do we acquire of the most minute distinctions between vice and virtue. Such frequent occasion, indeed, have we in common life to pronounce all kinds of moral determinations that no object of this kind can be new or unusual to us; nor could any *false* views or prepossessions maintain their ground against an experience so common and familiar. Experience being chiefly what forms the associations of ideas, it is impossible that any association could establish and support itself in direct opposition to that principle.

Usefulness is agreeable and engages our approbation. This is a matter of fact confirmed by daily observation. But *useful!* For what? For somebody's interest, surely. Whose interest then? Not our own only; for our approbation frequently extends further. It must, therefore, be the interest of those who are served by the character or action approved of; and these, we may conclude, however remote, are not totally indifferent to us. By opening up this principle we shall discover one great source of moral distinctions.

PART II.

Self-love is a principle in human nature of such extensive energy, and the interest

of each individual is, in general, so closely connected with that of the community, that those philosophers were excusable who fancied that all our concern for the public might be resolved into a concern for our own happiness and preservation. They saw every moment instances of approbation or blame, satisfaction or displeasure, towards characters and actions; they denominated the objects of these sentiments *virtues* or *vices*; they observed that the former had a tendency to increase the happiness, and the latter the misery, of mankind; they asked whether it were possible that we could have any general concern for society, or any disinterested resentment of the welfare or injury of others; they found it simpler to consider all these sentiments as modifications of self-love; and they discovered a pretence, at least, for this unity of principle in that close union of interest which is so observable between the public and each individual.

But, notwithstanding this frequent confusion of interests, it is easy to attain what natural philosophers, after Lord Bacon, have affected to call the *experimentum crucis*, or that experiment which points out the right way in any doubt or ambiguity. We have found instances in which private interest was separate from public, in which it was even contrary, and yet we observed the moral sentiment to continue, notwithstanding this disjunction of interests. And wherever these distinct interests sensibly concurred, we always found a sensible increase of the sentiment, and a more warm affection to virtue and detestation of vice, or what we properly call *gratitude* and *aversion*. Compelled by these instances, we must renounce the theory which accounts for every moral sentiment by the principle of self-love. We must adopt a more public affection, and allow that the interests of society are not, even on their own account, entirely indifferent to us. Usefulness is only a tendency to a certain end; and it is a contradiction in terms that anything pleases as means to an end where the end itself nowise affects us. If usefulness, therefore, be a source of moral sentiment, and if this usefulness be not always considered with a reference to self, it follows that everything which contributes to the happiness of society recommends itself directly to our approbation and goodwill. Here is a principle which accounts in great part for the origin of morality.

And what need we seek for abstruse and remote systems when there occurs one so obvious and natural?

Have we any difficulty to comprehend the force of humanity and benevolence? Or to conceive that the very aspect of happiness, joy, prosperity, gives pleasure, that of pain, suffering, sorrow, communicates uneasiness? The human countenance, says Horace, borrows smiles or tears from the human countenance. Reduce a person to solitude, and he loses all enjoyment, except either of the sensual or speculative kind, and that because the movements of his heart are not forwarded by correspondent movements in his fellow-creatures. The signs of sorrow and mourning, though arbitrary, affect us with melancholy; but the natural symptoms, tears and cries and groans, never fail to infuse compassion and uneasiness. And if the effects of misery touch us in so lively a manner, can we be supposed altogether insensible or indifferent towards its causes when a malicious or treacherous character and behaviour are presented to us?

We enter, I shall suppose, into a convenient, warm, well-contrived apartment. We necessarily receive a pleasure from its very survey, because it presents us with the pleasing ideas of ease, satisfaction, and enjoyment. The hospitable, good-humoured, humane landlord appears. This circumstance surely must embellish the whole; nor can we easily forbear reflecting with pleasure on the satisfaction which results to everyone from his intercourse and good offices.

His whole family, by the freedom, ease, confidence, and calm enjoyment diffused over their countenances, sufficiently express their happiness. I have a pleasing sympathy in the prospect of so much joy;

* It is needless to push our researches so far as to ask why we have humanity or a fellow-feeling with others. It is sufficient that this has been proved to be a principle in human nature. We need stop somewhere in our examination of causes; and there are in every science some general principles beyond which we cannot hope to find any principle more general. No man is absolutely indifferent to the happiness and misery of others. The first has a natural tendency to give pleasure; the second, pain. This everyone may find in himself. It is not probable that these principles can be resolved into principles more simple and universal, whatever attempts may have been made to that purpose. But if it were possible, it belongs not to the present subject, and we may here safely consider these principles as original, happy if we can render the consequences sufficiently plain and perspicuous.

• "Uti ridetibus ardent, ita flentibus adest.
Humanis vultus."

and can never consider the source of it without the most agreeable emotions.

He tells me that an oppressive and powerful neighbour had attempted to dispossess him of his inheritance, and had long disturbed all his innocent and social pleasures. I feel an immediate indignation arise in me against such violence and injury.

But it is no wonder, he adds, that a private wrong should proceed from a man who had enslaved provinces, depopulated cities, and made the field and scaffold stream with human blood. I am struck with horror at the prospect of so much misery, and am actuated by the strongest antipathy against its author.

In general it is certain that, wherever we go, whatever we reflect on or converse about, everything still presents us with the view of human happiness or misery, and excites in our breast a sympathetic movement of pleasure or uneasiness. In our serious occupations, in our careless amusements, this principle still exerts its active energy.

A man who enters the theatre is immediately struck with the view of so great a multitude participating of one common amusement; and experiences, from their very aspect, a superior sensibility or disposition of being affected with every sentiment which he shares with his fellow-creatures.

He observes the actors to be animated by the appearance of a full audience, and raised to a degree of enthusiasm which they cannot command in any solitary or calm moment.

Every movement of the theatre by a skilful poet is communicated, as it were by magic, to the spectators, who weep, tremble, resent, rejoice, and are inflamed with all the variety of passions which actuate the several personages of the drama.

Where any event crosses our wishes and interrupts the happiness of the favourite characters, we feel a sensible anxiety and concern. But where their sufferings proceed from the treachery, cruelty, or tyranny of an enemy, our breasts are affected with the liveliest resentment against the author of these calamities.

It is here esteemed contrary to the rules of art to represent anything cool and indifferent. A distant friend, or a confidant, who has no immediate interest in the catastrophe, ought, if possible, to

be avoided by the poet, as communicating a like indifference to the audience and checking the progress of the passions.

Few species of poetry are more entertaining than *pastoral*; and everyone is sensible that the chief source of its pleasure arises from those images of a gentle and tender tranquillity which it represents in its personages, and of which it communicates a like sentiment to the reader. Sannazarius, who transferred the scene to the sea-shore, though he presented the most magnificent object in nature, is confessed to have erred in his choice. The idea of toil, labour, and danger suffered by the fishermen is painful, by an unavoidable sympathy which attends every conception of human happiness or misery.

When I was twenty, says a French poet, Ovid was my favourite. Now I am forty I declare for Horace. We enter, to be sure, more readily into sentiments which resemble those we feel every day; but no passion, when well represented, can be entirely indifferent to us, because there is none of which every man has not within him at least the seeds and first principles. It is the business of poetry to bring every affection near to us by lively imagery and representation, and make it look like truth and reality; a certain proof that, wherever that reality is found, our minds are disposed to be strongly affected by it.

Any recent event or piece of news by which the fate of states, provinces, or many individuals is affected is extremely interesting even to those whose welfare is not immediately engaged. Such intelligence is propagated with celerity, heard with avidity, and inquired into with attention and concern. The interest of society appears, on this occasion, to be in some degree the interest of each individual. The imagination is sure to be affected, though the passions excited may not always be so strong and steady as to have great influence on the conduct and behaviour.

The perusal of a history seems a calm entertainment, but would be no entertainment at all did not our hearts beat with correspondent movements to those which are described by the historian.

Thucydides and Guicciardini support with difficulty our attention, while the former describes the trivial encounters of the small cities of Greece, and the latter the harmless wars of Pisa. The few

persons interested and the small interest fill not the imagination and engage not the affections. The deep distress of the numerous Athenian army before Syracuse, the danger which so nearly threatens Venice—these excite compassion, these move terror and anxiety.

The indifferent, uninteresting style of Suetonius, equally with the masterly pencil of Tacitus, may convince us of the cruel depravity of Nero or Tiberius. But what a difference of sentiment, while the former coldly relates the facts, and the latter sets before our eyes the venerable figures of a Soranus and a Thrasea, intrepid in their fate, and only moved by the melting sorrows of their friends and kindred! What sympathy, then, touches every human heart! What indignation against the tyrant whose causeless fear or unprovoked malice gave rise to such detestable barbarity!

If we bring these subjects nearer; if we remove all suspicion of fiction and deceit; what powerful concern is excited, and how much superior, in many instances, to the narrow attachments of self-love and private interest! Popular sedition, party zeal, a devoted obedience to factious leaders: these are some of the most visible, though less laudable, effects of this social sympathy in human nature.

The frivolousness of the subject, too, we may observe, is not able to detach us entirely from what carries an image of human sentiment and affection.

When a person stutters and pronounces with difficulty, we even sympathise with this trivial uneasiness, and suffer for him. And it is a rule in criticism that every combination of syllables or letters which gives pain to the organs of speech in the recital, appears also, from a species of sympathy, harsh and disagreeable to the ear. Nay, when we run over a book with our eye, we are sensible of such unharmonious composition, because we still imagine that a person recites it to us and suffers from the pronunciation of these jarring sounds. So delicate is our sympathy!

Easy and unconstrained postures and motions are always beautiful. An air of health and vigour is agreeable. Clothes which warm without burdening the body, which cover without imprisoning the limbs, are well-fashioned. In every judgment of beauty the feelings of the person affected enter into consideration, and communicate to the spectator similar

touches of pain or pleasure.¹ What wonder, then, if we can pronounce no judgment concerning the character and conduct of men without considering the tendencies of their actions, and the happiness or misery which thence arises to society? What association of ideas would ever operate were that principle here totally inactive?

If any man, from a cold insensibility or narrow selfishness of temper, is unaffected with the images of human happiness or misery, he must be equally indifferent to the images of vice and virtue; as, on the other hand, it is always found that a warm concern for the interests of our species is attended with a delicate feeling of all moral distinctions, a strong resentment of injury done to men, a lively approbation of their welfare. In this particular, though great superiority is observable of one man above another, yet none are so entirely indifferent to the interest of their fellow-creatures as to perceive no distinctions of moral good and evil in consequence of the different tendencies of actions and principles. How, indeed, can we suppose it possible in anyone who wears a human heart that, if there be subjected to his censure one character or system of conduct which is beneficial and another which is pernicious to his species or community, he will not so much as give a cool preference to the former, or ascribe to it the smallest merit or regard? Let us suppose such a person ever so selfish; let private interest have engrossed ever so much his attention; yet in instances where that is not

¹ "Decentior equis cuius astricta sunt illic; sed idem velocior. Pulchre aspectus sit athleta, cuius laetatus exercitatio exprimit; idem certamine pavorum. Nunquam enim *spectari* ab *utilitate* dividitur. Sed hæc quidem discretio modici iudicii est." *Quintilian, Inst.*, lib. viii., cap. 3.

² In proportion to the station which a man possesses, according to the relations in which he is placed, we always expect from him a greater or less degree of good; and, when disappointed, blame his inutility; and much more do we blame him if any ill or prejudice arise from his conduct and behaviour. When the interests of one country interfere with those of another, we estimate the merits of a statesman by the good or ill which results to his own country from his measures and councils, without regard to the prejudice which he brings on its enemies and rivals. His fellow-citizens are the objects which lie nearest the eye, while we determine his character. And as nature has implanted in everyone a superior affection to his own country, we never expect any regard to destroy nations where a competition arises. Not to mention that, while every man consults the good of his own community, we are sensible that the general interest of mankind is better promoted than by any loose, indeterminate views to the good of a species; *effiance* no beneficial action could ever result, for want of a duly limited object on which they could exert themselves.

concerned he must unavoidably feel *some* propensity to the good of mankind, and make it an object of choice, if everything else be equal. Would any man, who is walking along, tread as willingly on another's gouty toes, whom he has no quarrel with, as on the hard flint and pavement? There is here surely a difference in the case. We surely take into consideration the happiness and misery of others in weighing the several motives of action, and incline to the former where no private regards draw us to seek our own promotion or advantage by the injury of our fellow-creatures. And if the principles of humanity are capable, in many instances, of influencing our actions, they must at all times have *some* authority over our sentiments, and give us a general approbation of what is useful to society, and blame of what is dangerous or pernicious. The degrees of these sentiments may be the subject of controversy; but the reality of their existence, one should think, must be admitted in every theory or system.

A creature absolutely malicious and spiteful, were there any such in nature, must be worse than indifferent to the images of vice and virtue. All his sentiments must be inverted, and directly opposite to those which prevail in the human species. Whatever contributes to the good of mankind, as it crosses the constant bent of his wishes and desires, must produce uneasiness and disapprobation; and, on the contrary, whatever is the source of disorder and misery in society must, for the same reason, be regarded with pleasure and complacency. Timon, who probably from his affected spleen more than an inveterate malice was denominated the man-hater, embraced Alcibiades with great fondness. *Go on, my boy!* cried he, *acquire the confidence of the people. You will one day, I foresee, be the cause of great calamities to them.*¹ Could we admit the two principles of the Manicheans, it is an infallible consequence that their sentiments of human actions, as well as of everything else, must be totally opposite, and that every instance of justice and humanity, from its necessary tendency, must please the one deity and displease the other. All mankind so far resemble the good principle that, where interest or revenge or envy perverts not our disposition, we are always in-

clined, from our natural philanthropy, to give the preference to the happiness of society, and, consequently, to virtue above its opposite. Absolute, unprovoked, disinterested malice has never perhaps place in any human breast; or, if it had, must there pervert all the sentiments of morals as well as the feelings of humanity. If the cruelty of Nero be allowed entirely voluntary, and not rather the effect of constant fear and resentment, it is evident that Tigellinus, preferably to Seneca or Burrhus, must have possessed his steady and uniform approbation.

A statesman or patriot, who serves our own country in our own time, has always a more passionate regard paid to him than one whose beneficial influence operated on distant ages or remote nations, where the good resulting from his generous humanity, being less connected with us, seems more obscure, and affects us with a less lively sympathy. We may own the merit to be equally great, though our sentiments are not raised to an equal height in both cases. The judgment here corrects the inequalities of our internal emotions and perceptions in like manner as it preserves us from error in the several variations of images presented to our external senses. The same object, at a double distance, really throws on the eye a picture of but half the bulk; yet we imagine that it appears of the same size in both situations, because we know that on our approach to it its image would expand on the eye, and that the difference consists not in the object itself, but in our position with regard to it. And, indeed, without such a correction of appearances, both in internal and external sentiment, men could never think or talk steadily on any subject while their fluctuating situations produce a continual variation on objects, and throw them into such different and contrary lights and positions.²

¹ For a like reason, the tendencies of actions and characters, not their real accidental consequences, are alone regarded in our moral determinations or general judgements; though in our real feeling or sentiment we cannot help paying greater regard to one whose station, joined to virtue, renders him really useful to society, than to one who exerts the social virtues only in good intentions and benevolent affections. Separating the character from the fortune, by an easy and necessary effort of thought we pronounce these persons alike, and give them the same general praise. The judgment corrects, or endeavours to correct, the appearance, but is not able entirely to prevail over sentiment. Why is this peach-tree said to be better than that other, but because it produces more or better fruit? And would not the same praise be given it

² Plutarch, *In Vita L. Alc.*

The more we converse with mankind, and the greater social intercourse we maintain, the more shall we be familiarised to these general preferences and distinctions, without which our conversation and discourse could scarcely be rendered intelligible to each other. Every man's interest is peculiar to himself, and the aversions and desires which result from it cannot be supposed to affect others in a like degree. General language, therefore, being formed for general use, must be moulded on some more general views, and must affix the epithets of praise or blame in conformity to sentiments which arise from the general interests of the community. And if these sentiments in most men be not so strong as those which have a reference to private good, yet still they must make some distinction even in persons the most depraved and selfish, and must attach the notion of good to a beneficent conduct, and of evil to the contrary. Sympathy, we shall allow, is much fainter than our concern for ourselves, and sympathy with persons remote from us much fainter than that with persons near and contiguous; but for this very reason it is necessary for us, in our calm judgments and discourse concerning the characters of men, to neglect all these differences and render our sentiments more public and social. Besides that we ourselves often change our situation in this particular, we every day meet with persons who are in a situation different from us, and who could never converse with us were we to remain constantly in that position and point of view which is peculiar to ourselves. The intercourse of sentiments, therefore, in society and conversation makes us form some general unalterable standard by which we may approve or disapprove of characters and manners. And though the heart takes not part entirely with those general notions, nor regulates all its love and hatred by the universal abstract differences of vice and virtue, without regard to self or the persons with whom we are more intimately connected, yet have these moral differences a considerable influence, and, being sufficient at least for discourse, serve all our purposes in company, in the

pulpit, on the theatre, and in the schools.*

Thus, in whatever light we take this subject, the merit ascribed to the social virtues appears still uniform, and arises chiefly from that regard which the natural sentiment of benevolence engages us to pay to the interests of mankind and society. If we consider the principles of the human make, such as they appear to daily experience and observation, we must *a priori* conclude it impossible for such a creature as man to be totally indifferent to the well or ill-being of his fellow-creatures, and not readily of himself to pronounce, where nothing gives him any particular bias, that what promotes their happiness is good, what tends to their misery is evil, without any farther regard or consideration. Here, then, are the faint rudiments at least, or outlines, of a general distinction between actions; and in proportion as the humanity of the person is supposed to increase his connection with those who are injured or benefited, and his lively conception of their misery or happiness, his consequent censure or approbation acquires proportionable vigour. There is no necessity that a generous action, barely mentioned in an old history or remote gazette, should communicate any strong feelings of applause and admiration. Virtue placed at such a distance is like a fixed star, which, though to the eye of reason it may appear as luminous as the sun in his meridian, is so infinitely removed as to affect the senses neither with light nor heat. Bring this virtue nearer by our acquaintance or connection with the persons, or even by an eloquent recital of the case, our hearts are immediately caught, our sympathy enlivened, and our cool approbation converted into the warmest sentiments of friendship and regard. These seem necessary and infallible consequences of the general principles of human nature as discovered in common life and practice.

Again, reverse these views and reasonings. Consider the matter *a posteriori*.

* It is wisely ordained by Nature that private connections should commonly prevail over universal views and considerations, otherwise our affections and actions would be dissipated and lost for want of a proper limited object. Thus a small benefit done to ourselves or our near friends excites more lively sentiments of love and approbation than a great benefit done to a distant commonwealth. But still we know here, as in all the senses, to correct the inequalities by reflection and retain a general standard of vice and virtue founded chiefly on general usefulness.

though snails or vermin had destroyed the peaches before they came to full maturity? In morals, too, is not the tree known by the fruit? And cannot we easily distinguish between nature and accident in the one case as well as in the other?

and, weighing the consequences, inquire if the merit of social virtue be not, in a great measure, derived from the feelings of humanity with which it affects the spectators. It appears to be matter of fact that the circumstance of *utility* in all subjects is a source of praise and approbation; that it is constantly appealed to in all moral decisions concerning the merit and demerit of actions; that it is the *sole* source of that high regard paid to justice, fidelity, honour, allegiance, and chastity; that it is inseparable from all the other social virtues—humanity, generosity, charity, affability, lenity, mercy, and moderation; and, in a word, that it is a foundation of the chief part of morals which has a reference to mankind and our fellow-creatures.

It appears, also, that in our general approbation of characters and manners the useful tendency of the social virtues moves us not by any regards to self-interest, but has an influence much more universal and extensive. It appears that a tendency to public good and to the promoting of peace, harmony, and order in society does always, by affecting the benevolent principles of our frame, engage us on the side of the social virtues. And it appears, as an additional confirmation, that these principles of humanity and sympathy enter so deeply into all our sentiments, and have so powerful an influence, as may enable them to excite the

strongest censure and applause. The present theory is the simple result of all these inferences, each of which seems founded on uniform experience and observation.

Were it doubtful whether there were any such principle in our nature as humanity or a concern for others, yet when we see, in numberless instances, that whatever has a tendency to promote the interests of society is so highly approved of, we ought thence to learn the force of the benevolent principle, since it is impossible for anything to please as means to an end where the end is totally indifferent. On the other hand, were it doubtful whether there were implanted in our nature any general principle of moral blame and approbation, yet when we see, in numberless instances, the influence of humanity, we ought thence to conclude that it is impossible but that everything which promotes the interest of society must communicate pleasure and what is pernicious give uneasiness. But when these different reflections and observations concur in establishing the same conclusion, must they not bestow an undisputed evidence upon it?

It is, however, hoped that the progress of this argument will bring a farther confirmation of the present theory, by showing the rise of other sentiments of esteem and regard from the same or like principles.

SECTION VI.

OF QUALITIES USEFUL TO OURSELVES

PART I.

It seems evident that, where a quality or habit is subjected to our examination, if it appear in any respect prejudicial to the person possessed of it, or such as incapacitates him for business and action, it is instantly blamed, and ranked among its faults and imperfections. Indolence, negligence, want of order and method, obstinacy, fickleness, rashness, credulity

—these qualities were never esteemed by anyone indifferent to a character, much less extolled as accomplishments or virtues. The prejudice resulting from them immediately strikes our eye, and gives us the sentiment of pain and disapprobation.

No quality, it is allowed, is absolutely either blamable or praiseworthy. It is all according to its degree. A due medium, say the Peripatetics, is the

characteristic of virtue. But this medium is chiefly determined by utility. A proper celerity, for instance, and despatch in business is commendable. When defective, no progress is ever made in the execution of any purpose; when excessive, it engages us in precipitate and ill-concerted measures and enterprises. By such reasonings we fix the proper and commendable mediocrity in all moral and prudential disquisitions, and never lose view of the advantages which result from any character or habit.

Now, as these advantages are enjoyed by the person possessed of the character, it can never be *self-love* which renders the prospect of them agreeable to us, the spectators, and prompts our esteem and approbation. No force of imagination can convert us into another person and make us fancy that we, being that person, reap benefit from those valuable qualities which belong to him. Or, if it did, no celerity of imagination could immediately transport us back into ourselves and make us love and esteem the person as different from us. Views and sentiments so opposite to known truth and to each other could never have place, at the same time, in the same person. All suspicion, therefore, of selfish regards is here totally excluded. It is a quite different principle which actuates our bosom and interests us in the felicity of the person whom we contemplate. Where his natural talents and acquired abilities give us the prospect of elevation, advancement, a figure in life, prosperous success, a steady command over fortune, and the execution of great or advantageous undertakings, we are struck with such agreeable images, and feel a complacency and regard immediately arise towards him. The ideas of happiness, joy, triumph, prosperity, are connected with every circumstance of his character, and diffuse over our minds a pleasing sentiment of sympathy and humanity.¹

¹ One may venture to affirm that there is no human creature to whom the appearance of happiness (where envy or revenge has no place) does not give pleasure, that of misery uneasiness. This seems inseparable from our make and constitution. But they are only the more generous minds that are thence prompted to seek zealously the good of others, and to have a real passion for their welfare. With men of narrow and ungenerous spirits this sympathy goes not beyond a slight feeling of the imagination, which serves only to excite sentiments of complacency or censure, and makes them apply to the object either honourable or dishonourable appellations. A gringing miser, for instance, praises *extremely industry* and *frugality* even in others, and sets them, in his estimation, above all the

Let us suppose a person originally framed so as to have no manner of concern for his fellow-creatures, but to regard the happiness and misery of all sensible beings with greater indifference than even two contiguous shades of the same colour. Let us suppose, if the prosperity of nations were laid on the one hand, and their ruin on the other, and he were desired to choose, that he would stand like the schoolman's ass, irresolute and undetermined, between equal motives; or, rather, like the same ass between two pieces of wood or marble, without any inclination or propensity to either side. The consequence, I believe, must be allowed just, that such a person, being absolutely unconcerned either for the public good of a community or the private utility of others, would look on every quality, however pernicious or however beneficial to society or to its possessor, with the same indifference as on the most common and uninteresting object.

But if, instead of this fancied monster, we suppose a *man* to form a judgment or determination in the case, there is to him a plain foundation of preference where everything else is equal; and, however cool his choice may be, if his heart be selfish, or if the person interested be remote from him, there must still be a choice or distinction between what is useful and what is pernicious. Now, this distinction is the same in all its parts with the *moral distinction*, whose foundation has been so often, and so much in vain, inquired after. The same endowments of the mind, in every circumstance, are agreeable to the sentiment of morals and to that of humanity; the same temper is susceptible of high degrees of the one sentiment and of the other; and the same alteration in the objects, by their nearer approach or by connections, enlivens the one and the other. By all the rules of philosophy, therefore, we must conclude that these sentiments are originally the same, since in each particular, even the most minute, they are governed by the same laws and are moved by the same objects.

Why do philosophers infer with the

other virtues. He knows the good that it suits from them, and feels that species of happiness with a more lively sympathy than any other you could represent to him, though perhaps he would not part with a shilling to make the fortune of the industrious man whom he prizes so highly.

greatest certainty that the moon is kept in its orbit by the same force of gravity that makes bodies fall near the surface of the earth, but because these effects are upon computation found similar and equal? And must not this argument bring as strong conviction in moral as in natural disquisitions?

To prove by any long detail that all the qualities useful to the possessor are approved of and the contrary censured would be superfluous. The least reflection on what is every day experienced in life will be sufficient. We shall only mention a few instances in order to remove, if possible, all doubt and hesitation.

The quality the most necessary for the execution of any useful enterprise is discretion, by which we carry on a safe intercourse with others, give due attention to our own and to their character, weigh each circumstance of the business which we undertake, and employ the surest and safest means for the attainment of any end or purpose. To a Cromwell, perhaps, or a De Retz, discretion may appear an alderman-like virtue, as Dr. Swift calls it; and, being incompatible with those vast designs to which their courage and ambition prompted them, it might really in them be a fault or imperfection. But in the conduct of ordinary life no virtue is more requisite, not only to obtain success, but to avoid the most fatal miscarriages and disappointments. The greatest parts without it, as observed by an elegant writer, may be fatal to their owner; as Polyphemus, deprived of his eye, was only the more exposed on account of his enormous strength and stature.

The best character, indeed, were it not rather too perfect for human nature, is that which is not swayed by temper of any kind, but alternately employs enterprise and caution, as each is *useful* to the particular purpose intended. Such is the excellence which St. Evremont ascribes to Maréchal Turenne, who displayed every campaign, as he grew older, more temerity in his military enterprises; and being now, from long experience, perfectly acquainted with every incident in war, he advanced with greater firmness and security in a road so well known to him. Fabius, says Machiavelli, was cautious; Scipio enterprising. And both succeeded, because the situation of the Roman affairs during the command of

each was peculiarly adapted to his genius; but both would have failed had these situations been reversed. He is happy whose circumstances suit his temper; but he is more excellent who can suit his temper to any circumstances.

What need is there to display the praises of industry and to extol its advantages in the acquisition of power and riches, or in raising what we call a *fortune* in the world? The tortoise, according to the fable, by his perseverance gained the race of the hare, though possessed of much superior swiftness. A man's time, when well husbanded, is like a cultivated field, of which a few acres produce more of what is useful to life than extensive provinces, even of the richest soil, when overrun with weeds and brambles.

But all prospect of success in life, or even of tolerable subsistence, must fail where a reasonable frugality is wanting. The heap instead of increasing diminishes daily, and leaves its possessor so much more unhappy, as, not having been able to confine his expenses to a large revenue, he will still less be able to live contentedly on a small one. The souls of men, according to Plato, inflamed with impure appetites, and losing the body which alone afforded means of satisfaction, hover about the earth and haunt the places where their bodies are deposited, possessed with a longing desire to recover the lost organs of sensation. So may we see worthless prodigals, having consumed their fortune in wild debauches, thrusting themselves into every plentiful table and every party of pleasure, hated even by the vicious, and despised even by fools.

The one extreme of frugality is *avarice*, which, as it both deprives a man of all use of his riches and checks hospitality and every social enjoyment, is justly censured on a double account. *Prodigality*, the other extreme, is commonly more hurtful to a man himself; and each of these extremes is blamed above the other according to the temper of the person who censures, and according to his greater or less sensibility to pleasure, either social or sensual.

Qualities often derive their merit from complicated sources. *Honesty*, *fidelity*, *truth* are praised for their immediate tendency to promote the interests of society; but after those virtues are once established upon this foundation they are

also considered as advantageous to the person himself, and as the source of that trust and confidence which can alone give a man any consideration in life. One becomes contemptible no less than odious when he forgets the duty which in this particular he owes to himself as well as to society.

Perhaps this consideration is one *chief* source of the high blame which is thrown on any instance of failure among women in point of *chastity*. The greatest regard which can be acquired by that sex is derived from their fidelity, and a woman becomes cheap and vulgar, loses her rank, and is exposed to every insult, who is deficient in this particular. The smallest failure is here sufficient to blast her character. A female has so many opportunities of secretly indulging these appetites that nothing can give us security but her absolute modesty and reserve, and where a breach is once made it can scarcely ever be fully repaired. If a man behave with cowardice on one occasion, a contrary conduct reinstates him in his character. But by what action can a woman whose behaviour has once been dissolute be able to assure us that she has formed better resolutions, and has self-command enough to carry them into execution?

All men, it is allowed, are equally desirous of happiness, but few are successful in the pursuit. One considerable cause is the want of strength of mind which might enable them to resist the temptation of present ease or pleasure and carry them forward in the search of more distant profit and enjoyment. Our affections on a general prospect of their objects form certain rules of conduct and certain measures of preference of one above another; and these decisions, though really the result of our calm passions and propensities (for what else can pronounce any object eligible or the contrary?) are yet said by a natural abuse of terms to be the determinations of pure *reason* and reflection. But when some of these objects approach nearer to us, or acquire the advantages of favourable lights and positions which catch the heart or imagination, our general resolutions are frequently confounded, a small enjoyment preferred, and lasting shame and sorrow entailed upon us. And however poets may employ their wit and eloquence in celebrating present pleasure and rejecting all distant views to fame, health, or

fortune, it is obvious that this practice is the source of all dissoluteness and disorder, repentance and misery. A man of a strong and determined temper adheres tenaciously to his general resolutions, and is neither seduced by the allurements of pleasure nor terrified by the menaces of pain; but keeps still in view those distant pursuits by which he at once ensures his happiness and his honour.

Self-satisfaction, at least in some degree, is an advantage which equally attends the fool and the wise man. But it is the only one; nor is there any other circumstance in the conduct of life where they are upon an equal footing. Business, books, conversation for all of these a fool is totally incapacitated, and, except condemned by his station to the coarsest drudgery, remains a *useless* burden upon the earth. Accordingly, it is found that men are extremely jealous of their character in this particular; and many instances are seen of profligacy and treachery, the most avowed and undeserved; none of bearing patiently the imputation of ignorance and stupidity. Dicaearchus, the Macedonian general, who, as Polybius tells us,¹ openly erected one altar to impiety, another to injustice, in order to bid defiance to mankind even he, I am well assured, would have started at the epithet of *fool*, and have meditated revenge for so injurious an appellation. Except the affection of parents, the strongest and most indissoluble bond in nature, no connection has strength sufficient to support the disgust arising from this character. Love itself, which can subsist under treachery, ingratitude, malice, and infidelity, is immediately extinguished by it when perceived and acknowledged; nor are deformity and old age more fatal to the dominion of that passion. So dreadful are the ideas of an utter incapacity for any purpose or undertaking, and of continued error and misconduct in life!

When it is asked whether a quick or a slow apprehension be most valuable; whether one that at first view penetrates far into a subject, but can perform nothing upon study; or a contrary character, which must work out everything by dint of application—whether a clear head or a copious inventory—whether a profound genius or a sure judgment—in short, what character, or peculiar turn of understanding is more excellent than another?

¹ Lib. xvii., cap. 35.

It is evident that we can answer none of these questions without considering which of those qualities capacitates a man best for the world, and carries him farthest in any undertaking.

If refined sense and exalted sense be not so useful as common sense, their rarity, their novelty, and the nobleness of their objects make some compensation, and render them the admiration of mankind; as gold, though less serviceable than iron, acquires from its scarcity a value which is much superior.

The defects of judgment can be supplied by no art or invention; but those of memory frequently may, both in business and in study, by method and industry, and by diligence in committing everything to writing; and we scarcely ever hear a short memory given as a reason for a man's failure in any undertaking. But in ancient times, when no man could make a figure without the talent of speaking, and when the audience were too delicate to bear such crude, undigested harangues as our extemporary orators offer to public assemblies, the faculty of memory was then of the utmost consequence, and was accordingly much more valued than at present. Scarcely any great genius is mentioned in antiquity who is not celebrated for this talent; and Cicero enumerates it among the other sublime qualities of Caesar himself.¹

Particular customs and manners alter the usefulness of qualities; they also alter their merit. Particular situations and accidents have, in some degree, the same influence. He will always be more esteemed who possesses those talents and accomplishments which suit his station and profession than he whom fortune has misplaced in the part which she has assigned him. The private or selfish virtues are, in this respect, more arbitrary than the public and social. In other words, they are, perhaps, less liable to controversy.

Freedom such continued ostentatiousness has prevailed among the reasts, is evident with regard to public sentiment, those in speculative with utilities. Any respect, and so many false. It is here est. of it, been, no doubt, fies of art to re. business world are apt, ad indifferent. A. and ra. to discover a infidant, who has no in. of those the catastrophe, ought, and, crea. cura.

moral endowments, and even sometimes absolutely to deny their existence and reality. In like manner, I find that, of old, the perpetual cant of the Stoics and Cynics concerning *virtue*, their magnificent professions and slender performances, bred a disgust in mankind; and Lucian, who, though licentious with regard to pleasure, is yet in other respects a very moral writer, cannot sometimes talk of virtue, so much boasted, without betraying symptoms of spleen and irony.¹ But surely this peevish delicacy, whence-ever it arises, can never be carried so far as to make us deny the existence of every species of merit, and all distinction of manners and behaviour. Besides *discretion*, *caution*, *enterprise*, *industry*, *assiduity*, *frugality*, *economy*, *good sense*, *prudence*, *discernment*; besides these endowments, I say, whose very names force an avowal of their merit, there are many others to which the most determined scepticism cannot for a moment refuse the tribute of praise and approbation. *Temperance*, *sobriety*, *patience*, *constancy*, *perseverance*, *forththought*, *considerateness*, *secrecy*, *order*, *insinuation*, *address*, *presence of mind*, *quickness of conception*, *facility of expression* these, and a thousand more of the same kind, no man will ever deny to be excellences and perfections. As their merit consists in their tendency to serve the person possessed of them, without any magnificent claim to public and social desert, we are the less jealous of their pretensions, and readily admit them into the catalogue of laudable qualities. We are not sensible that, by this concession, we have paved the way for all the other moral excellences, and cannot consistently hesitate any longer with regard to disinterested benevolence, patriotism, and humanity.

It seems, indeed, certain that first appearances are here, as usual, extremely deceitful, and that it is more difficult, in a speculative way, to resolve into self-love the merit which we ascribe to the selfish virtues above mentioned than that even of the social virtues, justice and beneficence. For this latter purpose we need

¹ Ἀρετὴν τινα, καὶ ἀσώματα, καὶ λήρους μεγάλῃ τῇ φωνῇ ξυνερόντων.—Lucr. *Timon.*, 9. Ἀγαθὴ. Καὶ συναγαγόντες (οἱ φιλόσοφοι) εὐεχαπάτητα μετρίκια τὴν τε πολυθρήλητον ἀρετὴν τραγωδοῦσι.—*Isaon.* In another place, Ἡ ποῦ γὰρ ἐστὶν ἡ πολυθρήλητος ἀρετὴ, καὶ φύσις, καὶ εἰμαρμένη, καὶ τίχῃ, ἀνιπτότατα καὶ κενὰ πραγμάτων ἀνόμενα;—*Deor. Concil.*, 13.

but say that whatever conduct promotes the good of the community is loved, praised, and esteemed by the community on account of that utility and interest of which everyone partakes; and though this affection and regard be in reality gratitude, not self-love, yet a distinction, even of this obvious nature, may not readily be made by superficial reasoners, and there is room at least to support the cavil and dispute for a moment. But as qualities which tend only to the utility of their possessor, without any reference to us or to the community, are yet esteemed and valued, by what theory or system can we account for this sentiment from self-love, or deduce it from that favourite origin? There seems here a necessity for confessing that the happiness and misery of others are not spectacles entirely indifferent to us, but that the view of the former, whether in its causes or effects, like sunshine or the prospect of well-cultivated plains (to carry our pretensions no higher), communicates a secret joy and satisfaction; the appearance of the latter, like a lowering cloud or barren landscape, throws a melancholy damp over the imagination. And this concession being once made, the difficulty is over, and a natural, unforced interpretation of the phenomena of human life will afterwards, we may hope, prevail among all speculative inquirers.

PART II.

It may not be improper in this place to examine the influence of bodily endowments and of the goods of fortune over our sentiments of regard and esteem, and to consider whether these phenomena fortify or weaken the present theory. It will naturally be expected that the beauty of the body, as is supposed by all ancient moralists, will be similar in some respects to that of the mind, and that every kind of esteem which is paid to a man will have something similar in its origin, whether it arise from his mental endowments or from the situation of his exterior circumstances.

It is evident that one considerable source of *beauty* in all animals is the advantage which they reap from the particular structure of their limbs and members, suitably to the particular manner of life to which they are by nature destined. The just proportions of a horse, described by Xenophon and

Virgil, are the same that are received at this day by our modern jockeys, because the foundation of them is the same—namely, experience of what is detrimental or useful in the animal.

Broad shoulders, a lank belly, firm joints, taper legs—all these are beautiful in our species, because signs of force and vigour. Ideas of utility and its contrary, though they do not entirely determine what is handsome or deformed, are evidently the source of a considerable part of approbation or dislike.

In ancient times bodily strength and dexterity, being of greater *use* and importance in war, was also much more esteemed and valued than at present. Not to insist on Homer and the poets, we may observe that historians scruple not to mention *force of body* among the other accomplishments even of Epaminondas, whom they acknowledge to be the greatest hero, statesman, and general of all the Greeks.¹ A like praise is given to Pompey, one of the greatest of the Romans.² This instance is similar to what we observed above with regard to memory.

What derision and contempt, with both sexes, attend *impotence*; while the unhappy object is regarded as one deprived of so capital a pleasure in life, and at the same time as disabled from communicating it to others. *Barrenness* in women, being also a species of *untility*, is a reproach, but not in the same degree, of which the reason is very obvious according to the present theory.

There is no rule in painting or statuary more indispensable than that of balancing the figures, and placing them with the greatest exactness on their proper centre of gravity. A figure which is not justly balanced is ugly, because it conveys the disagreeable ideas of fall, harm, and pain.³

¹ "Cum alacribus, saltu; cum velocibus, cursu; cum validis, recte certabat." Salustius. *Apud Virgel.*

² Diodorus Siculus, lib. xv. It may not be improper to give the character of Epaminondas, as drawn by the historian, in order to show the ideas of perfect merit which prevailed in those ages. In other illustrious men, says he, you will observe that each possessed one shining quality, which was the foundation of his fame. In Epaminondas all the virtues are found united: force of body, eloquence of expression, vigour of mind, contempt of riches, gentleness of disposition, and, what is chiefly to be regarded, courage and conduct in war.

³ All men are equally liable to pain and disease and sickness, and may again recover health and ease. These circumstances, as they make no distinction between one man and another, are no source of pride or humility, regard or contempt. But, comparing our own species to superior ones, it is a very mortifying consideration that we should all be so liable to diseases

A disposition or turn of mind which qualifies a man to rise in the world and advance his fortune is entitled to esteem and regard, as has already been explained. It may, therefore, naturally be supposed that the actual possession of riches and authority will have a considerable influence over these sentiments.

Let us examine any hypothesis by which we can account for the regard paid to the rich and powerful we shall find none satisfactory but that which derives it from the enjoyment communicated to the spectator by the images of prosperity, happiness, ease, plenty, in health and the gratification of every appetite. Self-love, for instance, which some affect so much to consider as the source of every sentiment, is plainly insufficient for this purpose. Where no goodwill or friendship appears it is difficult to conceive what we can find our help or advantage from the riches of others, though we naturally respect the rich even before they discover any such favourable disposition towards us.

We are affected with the same sentiments when we lie so much out of the sphere of their activity that they cannot even be supposed to possess the power of serving us. A prince of war in all civilised nations is treated with a regard suited to his condition and riches it is evident, go far towards fixing the condition of any person. If birth and quality enter for a share, this still affords us an argument to our present purpose. For what is it we call a man of birth but one who is descended from a long succession of rich and powerful ancestors and who acquires our esteem by his connection with persons whom we esteem? His ancestors therefore, though dead, are respected in some measure on account of their riches and consequently without any kind of expectation.

But, not to go so far as princes or war or the dead to find instances of this disinterested regard for riches we may only observe, with a little attention, those phenomena which occur in common life

and conversation. A man who is himself, we shall suppose, of a competent fortune, and of no profession, being introduced to a company of strangers, naturally treats them with different degrees of respect as he is informed of their different fortunes and conditions though it is impossible that he can so suddenly propose and perhaps he would not accept of, any pecuniary advantage from them. A traveller is always admitted into company, and meets with civility, in proportion as his train and equipage speak him a man of great or moderate fortune. In short, the different ranks of men are in great measure regulated by riches and that with regard to superiors as well as inferiors is stronger as well as requited in.

What remains therefore but to conclude that riches are desired for ourselves only, the means of gratifying our appetite either at present or in some or many future period they begot esteem in others merely from their having that influence? This indeed is their very nature or essence, they have a direct reference to the commodities, conveniences and pleasures of life. The bill of a landlord who is broke or gold in a desert island would otherwise be full as valuable. When we approach a man who is

we say at his door we are presented with the plenitude of plenty satisfaction cleanliness warmth a cheerful house elegant furniture ready service, and whatever is desirable in meat, drink, or apparel. On the contrary when a poor man appears the disagreeable images of want, penury, hard labour, dirty furniture, coarse or ragged clothes, nauseous meat and distasteful liquor immediately strike our fancy. What else do we mean by saying that one is rich, the other poor? And is regard or contempt is the natural consequence of those different situations in life, it is easily seen what additional light and evidence this throws on our preceding theory with regard to all moral distinctions.

And infirmities and diseases are strangely employed in order to produce the contrary effect. They would have more success if the emblem of our thoughts were not perpetually turned to compare our selves with others. The infirmities of old age are mortifying because a comparison with the young may take place. The king's evil is industriously concealed because it affects others and is often transmitted to posterity. The case is nearly the same with such diseases as convey any noxious or frightful image, such as the epilepsy, for instance, ulcers, sores, scabs, etc.

There is nothing extraneous and seemingly unnecessary in the operation of our passions when we are in the fortune and situation of others. Very often a man's advancement and prosperity produces envy which has a strong mixture of hatred and arises chiefly from the comparison of ourselves with the person. At the very same time or at least in very short intervals we may feel the passion of respect, which is a species of affection or goodwill with a mixture of humility. On the other hand the misfortunes of our fellows often cause pity which has in it a strong mixture of goodwill. This sentiment of pity is

A man who has cured himself of all ridiculous prepossessions, and is fully, sincerely, and steadily convinced, from experience as well as philosophy, that the difference of fortune makes less difference in happiness than is vulgarly imagined: such a one does not measure out degrees of esteem according to the rent-rolls of his acquaintance. He may, indeed, externally pay a superior deference to the great lord above the vassal, because riches are the most convenient, being the most fixed and determinate source of distinction. But his internal sentiments are more regulated by the personal characters of men than by the accidental and capricious favours of fortune.

In most countries of Europe, finally, that is hereditary riches marked with titles and symbols from the sovereign are the chief source of distinction. In

England more regard is paid to present opulence and plenty. Each practice has its advantages and disadvantages. Where birth is respected, inactive, spiritless minds remain in haughty indolence, and dream of nothing but pedigrees and genealogies, the generous and ambitious seek honour and authority and reputation and favour. Where riches are the chief idol, corruption, venality, rapine prevail, arts, manufactures, commerce, agriculture flourish. The former prejudice, being favourable to military virtue, is more suited to monarchies. The latter, being the chief spur to industry, agrees better with a republic in government. And we accordingly find that each of these forms of government, by varying the *utility* of those customs, has commonly a proportionable effect on the sentiments of mankind.

SECTION VII.

OF QUALITIES IMMEDIATELY AGREEABLE TO OURSELVES

Whoever has passed in company with serious, melancholy people, and has observed how suddenly the conversation was animated, and what sprightliness diffused itself over the countenance, discourse, and behaviour of everyone on the accession of a good humoured, lively companion: such a one will easily allow that cheerfulness carries great merit with it, and naturally contributes the goodwill of mankind. No quality, indeed, more readily communicates itself to all around, because no one has a greater propensity

nearly allied to contempt, which is a species of dislike with a mixture of pride. The only point at this phenomena is a subject of speculation to such as are curious with regard to moral inquiries. It is sufficient for the present purpose to observe in general that power and riches commonly cause respect, poverty and meanness contempt, though particular views and incidents may sometimes raise the passions of envy and of pity.

the beholders, and procure friendship and regard. Their immediate sensation to the person possessed of them is agreeable. Others enter into the same humour, and catch the sentiment by a contagion or natural sympathy; and as we cannot forbear loving whatever pleases, a kindly emotion arises towards the person who communicates so much satisfaction. He is a more animating spectacle; his presence diffuses over us more serene complacency and enjoyment; our imagination, entering into his feelings and disposition, is affected in a more agreeable manner than if a melancholy, dejected, sullen, anxious temper were presented to us. Hence the affection and approbation which attend the former, the aversion and disgust with which we regard the latter.¹

Few men would envy the character which Cæsar gives of Cassius:—

He loves no play,
As thou dost, Antony; he hears no music;
Seldom he smiles; and smiles in such a sort
As if he mock'd himself, and scorn'd his spirit
That could be mov'd to smile at anything.

Not only such men, as Cæsar adds, are commonly *dangerous*, but also, having little enjoyment within themselves, they can never become agreeable to others or contribute to social entertainment. In all polite nations and ages a relish for pleasure, if accompanied with temperance and decency, is esteemed a considerable merit even in the greatest men, and becomes still more requisite in those of inferior rank and character. It is an agreeable representation which a French writer gives of the situation of his own mind in this particular. *Virtue I love, says he, without austerity; pleasure without effeminacy; and life without fearing misfortune.* assigned, not struck with any signal virtues are greatness of mind or dignity, the power with elevation of sentiment, they cry, and with that noble

contingent, on particular occasions, is cruel, years of disagreeable passions, fear, breasts evident melancholy, anxiety, etc. But resentment, subjected to a universal, make calamities. may respect those and another, and can be of it, and only when the disagreeable business, character, and, by rules of art to regulate, and to a disapprobation and indifference. A confidant, who has no notions, in the catastrophe, ought, and, cre-

pride and spirit which arises from conscious virtue? The sublime, says Longinus, is often nothing but the echo or image of magnanimity; and where this quality appears in anyone, even though a syllable be not uttered, it excites our applause and admiration; as may be observed of the famous silence of Ajax in the *Odyssey*, which expresses more noble disdain and resolute indignation than any language can convey.¹

Were I Alexander, said Parmenio, *I would accept of these offers made by Darius. So would I too,* replied Alexander, *were I Parmenio.* This saying is admirable, says Longinus, from a like principle.²

Go! cries the same hero to his soldiers, when they refused to follow him to the Indies; *go tell your countrymen that you left Alexander completing the conquest of the world.* "Alexander," said the Prince of Condé, who always admired this passage, "abandoned by his soldiers among barbarians not yet fully subdued, felt in himself such a dignity and right of empire that he could not believe it possible that anyone would refuse to obey him. Whether in Europe or in Asia, among Greeks or Persians, all was indifferent to him; wherever he found men he fancied he should find subjects."

The confident of Medea in the tragedy recommends caution and submission, and, enumerating all the distresses of that unfortunate heroine, asks her what she has to support her against her numerous and implacable enemies. *Myself,* replies she; *myself, I say, and it is enough.* Boileau justly recommends this passage as an instance of true sublime.³

When Phocion—the modest, the gentle Phocion—was led to execution, he turned to one of his fellow-sufferers who was lamenting his own hard fate. *Is it not glory enough for you,* says he, *that you die with Phocion?*⁴

Place in opposition the picture which Tacitus draws of Vitellius fallen from empire, prolonging his ignominy from a wretched love of life, delivered over to the merciless rabble, tossed, buffeted, and kicked about; constrained, by their holding a poniard under his chin, to raise his head and expose himself to every contumely. What abject infamy! What low humiliation! Yet even here, says the historian, he discovered some symptoms

¹ Cap. 9.

³ *Reflexion 10 sur Longin.*

² Idem.

⁴ Plutarch, in Phoc.

of a mind not wholly degenerate. To a tribune who insulted him he replied: *I am still your emperor.*¹

We never excuse the absolute want of spirit and dignity of character, or a proper sense of what is due to one's self in society and the common intercourse of life. This vice constitutes what we properly call *meanness*—when a man can submit to the basest slavery in order to gain his ends, fawn upon those who abuse him, and degrade himself by intimacies and familiarities with undeserving inferiors. A certain degree of generous pride or self-value is so requisite that the absence of it in the mind displeases after the same manner as the want of a nose, eye, or any of the most material features of the face or members of the body.²

The utility of courage, both to the public and to the person possessed of it, is an obvious foundation of merit. But to anyone who duly considers of the matter it will appear that this quality has a peculiar lustre, which it derives wholly from itself and from that noble elevation inseparable from it. Its figure, drawn by painters and by poets, displays in each feature a sublimity and daring confidence which catches the eye, engages the affections, and diffuses by sympathy a like sublimity of sentiment over every spectator.

Under what shining colours does Demosthenes represent Philip, where the orator apologises for his own administration, and justifies that pertinacious love of liberty with which he had inspired the Athenians. "I beheld Philip," says he, "he with whom was your contest, resolutely, while in pursuit of empire and dominion, exposing himself to every

wound, his eye gored, his neck wrested, his arm, his thigh pierced, whatever part of his body fortune should seize on, that cheerfully relinquishing, provided that with what remained he might live in honour and renown. And shall it be said that he, born in Pella, a place heretofore mean and ignoble, should be inspired with so high an ambition and thirst of fame, while you Athenians "etc. These praises excite the most lively admiration; but the views presented by the orator carry us not, we see, beyond the hero himself, nor ever regard the future advantageous consequences of his valour.

The material temper of the Romans, inflamed by continual wars, had raised their esteem of courage so high that in their language it was called *virtue*, by way of excellence and of distinction from all other moral qualities. The Suevi, in the opinion of Tacitus, *dressed their hair with a laudable intent, not for the purpose of loving or being loved; they adorned themselves only for their enemies, and in order to appear more terrible*—a sentiment of the historian which would sound a little oddly in other nations and other ages.

¹ Tacit., *Hist.*, lib. iii. The author, entering upon the narration, says: "*Laniata veste, jectum spectaculum ducebatur, nullis increpantibus, nullo inlacrimante; deformitas exitus misericordiam abstulerat.*" To enter thoroughly into this method of thinking, we must make allowance for the ancient maxims, that no one ought to prolong his life after it became dishonourable; but, as he had always a right to dispose of it, it then became a duty to part with it.

² The absence of virtue may often be a vice, and that of the highest kind, as in the instance of ingratitude as well as meanness. Where we expect a beauty, the disappointment gives an uneasy sensation and produces a real deformity. An abjectness of character, likewise, is disgusting and contemptible in another view. Where a man has no sense of value in himself we are not likely to have any higher esteem of him. And if the same person who crouches to his superiors is insolent to his inferiors (as often happens), this contrariety of behaviour, instead of correcting the former vice, aggravates it extremely by the addition of a vice still more odious. See Sect. viii.

³ *De Corona.*

judicious account of the state of that kingdom.

Of the same class of virtues with courage is that undisturbed philosophical tranquillity, superior to pain, sorrow, anxiety, and each assault of adverse fortune. Conscious of his own virtue, say the philosophers, the sage elevates himself above every accident of life; and, securely placed in the temple of wisdom, looks down on inferior mortals engaged in pursuit of honours, riches, reputation, and every frivolous enjoyment. These pretensions, no doubt, when stretched to the utmost, are by far too magnificent for human nature. They carry, however, a grandeur with them which seizes the spectator and strikes him with admiration. And the nearer we can approach in practice to this sublime tranquillity and indifference (for we must distinguish it from a stupid insensibility), the more secure enjoyment shall we attain within ourselves, and the more greatness of mind shall we discover to the world. The philosophical tranquillity may, indeed, be considered only as a branch of magnanimity.

Who admires not Socrates; his perpetual serenity and contentment amid the greatest poverty and domestic vexations; his resolute contempt of riches and his magnanimous care of preserving liberty, while he refused all assistance from his friends and disciples and avoided even the dependence of an obligation? Cyprius had not so much as a door to infer, little house or hovel, and therefore agreeably lost his iron lamp, the only furniture writer he had worth taking. But resolute and in a disappoint all robbers for the toys he, who supplied its place with an unaffected session ever after.

assigne is not so ancient the heroes in ages are great as those in war and the power with grandeur and force of they very, and enriches our narrow content, rejected as extraordinary, on pain. They in their years, have had equal evident, and and incred- sentiment, those, and ano, clemency, lamities. It is here es, be, their gentle- les of art to re, busi, who, use their d indifferent. A, and, to, or four nfidant, who has no in, d, we at the catastrophe, ought, and, ed, id

order, tranquillity, and other social virtues to which, in the administration of government, we have attained in modern times, had anyone been then able to have made a fair representation of them. Such is the compensation which nature, or rather education, has made in the distribution of excellences and virtues in those different ages.

The merit of benevolence, arising from its utility and its tendency to promote the good of mankind, has been already explained, and is no doubt the source of a considerable part of that esteem which is so universally paid to it. But it will also be allowed that the very softness and tenderness of the sentiment, its engaging endearments, its fond expressions, its delicate attentions, and all that flow of mutual confidence and regard which enters into a warm attachment of love and friendship--it will be allowed, I say, that these feelings, being delightful in themselves, are necessarily communicated to the spectators, and melt them into the same fondness and delicacy. The tear naturally starts in our eye on the apprehension of a warm sentiment of this nature; our breast heaves, our heart is agitated, and every humane, tender principle of our frame is set in motion, and gives us the purest and most satisfactory enjoyment.

When poets form descriptions of Elysian fields where the blessed inhabitants stand in no need of each other's assistance, they yet represent them as maintaining a constant intercourse of love and friendship, and soothe our fancy with the pleasing image of these soft and gentle passions. The idea of tender tranquillity in a pastoral Arcadia is agreeable from a like principle, as has been observed above.

Who would live and perpetual wrangling and scolding and mutual reproaches? The roughness and harshness of these emotions disturb and displease us; we suffer by contagion and sympathy; nor can we remain indifferent spectators, even though certain that no pernicious consequences would ever follow from such angry passions.

As a certain proof that the whole merit of benevolence is not derived from its usefulness, we may observe that in a kind way of blame we say a person is *too good* when he exceeds his part in society and carries his attention for others beyond the

proper bounds. In like manner we say a man is *too high-spirited, too intrepid, too indifferent about fortune*; reproaches which really at bottom imply more esteem than many panegyrics. Being accustomed to rate the merit and demerit of characters chiefly by their useful or pernicious tendencies, we cannot forbear applying the epithet of blame when we discover a sentiment which rises to a degree that is hurtful; but it may happen at the same time that its noble elevation or its engaging tenderness so seizes the heart as rather to increase our friendship and concern for the person.*

The amours and attachments of Harry the Fourth of France, during the civil wars of the League, frequently hurt his interest and his cause; but all the young, at least, and amorous, who can sympathise with the tender passions, will allow that this very weakness -- for they will readily call it such -- chiefly endears that hero, and interests them in his fortunes.

The excessive bravery and resolute inflexibility of Charles the Twelfth ruined his own country, and infested all his neighbours; but have such splendour and greatness in their appearance as strikes us with admiration; and they might, in some degree, be even approved of, if they betrayed not sometimes too evident symptoms of madness and disorder.

The Athenians pretended to the first invention of agriculture and of laws, and always valued themselves extremely on the benefit thereby procured to the whole race of mankind. They also boasted, and with reason, of their warlike enterprises; particularly against those innumerable fleets and armies of Persians which invaded Greece during the reigns of Darius and Xerxes. But, though there be no comparison, in point of utility, between these peaceful and military honours, yet we find that the orators who have writ such elaborate panegyrics on that famous city have chiefly triumphed in displaying the warlike achievements. Lysias, Thucydides, Plato, and Isocrates discover, all of them, the same partiality, which, though condemned by calm reason

and reflection, appears so natural in the mind of man.

It is observable that the great charm of poetry consists in lively pictures of the sublime passions -- magnanimity, courage, disdain of fortune; or those of the tender affections, love and friendship, which warm the heart and diffuse over it similar sentiments and emotions. And though all kinds of passion, even the most disagreeable -- such as grief and anger -- are observed, when excited by poetry, to convey a satisfaction, from a mechanism of nature not easy to be explained; yet those more elevated or softer affections have a peculiar influence, and please from more than one cause or principle: not to mention that they alone interest us in the fortune of the persons represented, or communicate any esteem and affection for their character.

And can it possibly be doubted that this talent itself of poets to move the passions, this pathetic and sublime of sentiment, is a very considerable merit; and, being enhanced by its extreme rarity, may exalt the person possessed of it above every character of the age in which he lives? The prudence, address, steadiness, and benign government of Augustus, adorned with all the splendour of his noble birth and imperial crown, render him but an unequal competitor for fame with Virgil, who lays nothing into the opposite scale but the divine beauties of his poetical genius.

* Cheerfulness could scarce admit of blame from its excess were it not that dissolute mirth without a proper cause or subject is a sure symptom and characteristic of folly, and on that account disgustful.

SECTION VIII.

OF QUALITIES IMMEDIATELY AGREEABLE TO OTHERS

As the mutual shocks in *society* and the oppositions of interest and self-love have constrained mankind to establish the laws of *justice* in order to preserve the advantages of mutual assistance and protection, in like manner the eternal contrarieties, in *company*, of men's pride and self-conceit have introduced the rules of good manners or politeness, in order to facilitate the intercourse of minds and an undisturbed commerce and conversation. Among well-bred people a mutual deference is affected, contempt of others disguised, authority concealed, attention given to each in his turn, and an easy stream of conversation maintained, without vehemence, without interruption, without eagerness for victory, and without any airs of superiority. These attentions and regards are immediately agreeable to others, abstracted from any consideration of utility or beneficial tendencies; they conciliate affection, promote esteem, and extremely enhance the merit of the person who regulates his behaviour by them.

Many of the forms of breeding are arbitrary and casual, but the thing exercised by them is still the same. A Greek lord goes out of his own house before his valet, to signify that he leaves him in command. In other countries the ladies he, without last, as a common mark of

is to render a man perfect signs are not so great as must have wit and in great good manners. What the power of elegance to define; but it they cry, and determine that it is a contemptible, agreeable to others, and on his first appearance is evident to every one, and a source of contention to every one. The subject of wit and elegance, indeed, is very respectful, and only of the nature of the is here established by the character, and of art to the business, and of indifference. A man who is indifferent, who has no interest in the catastrophe, ought, and

many classes of it which are now received on the sole testimony of taste and sentiment might, perhaps, be resolved into more general principles. But this is sufficient for our present purpose, that it does affect taste and sentiment, and, bestowing an immediate enjoyment, is a sure source of approbation and affection.

In countries where men pass most of their time in conversation, and visits, and assemblies, these *companionable* qualities, so to speak, are of high estimation, and form a chief part of personal merit. In countries where men live a more domestic life, and either are employed in business or amuse themselves in a narrower circle of acquaintance, the more social qualities are chiefly regarded. Thus I have often observed that among the French the first questions with regard to a stranger are, *Is he polite? Has he wit?* In our own country the chief praise bestowed is always that of a *good-natured, sensible fellow*.

In conversation the lively spirit of dialogue is agreeable, even to those who desire not to have any share in the discourse; hence the teller of long stories or the pompous declaimer is very little approved of. But most men desire likewise their turn in the conversation, and regard with a very evil eye that *loquacity* which deprives them of a right they are naturally so jealous of.

There is a sort of harmless *liars*, frequently to be met with in company, who deal much in the marvellous. Their usual intention is to please and entertain; but, as men are most delighted with what they conceive to be truth, these people mistake extremely the means of pleasing, and incur universal blame. Some indulgence, however, to lying or fiction is given in *humorous* stories, because it is

virtue that it is a quality of the mind agreeable to or approved some qualities produce pleasure because they are useful to others produce it more immediately, which is the case with

there really agreeable and entertaining, and truth is not of any importance.

Eloquence, genius of all kinds, even good sense and sound reasoning when it rises to an eminent degree and is employed upon subjects of any considerable dignity and nice discernment—all these endowments seem immediately agreeable, and have a merit distinct from their usefulness. Rarity, likewise, which so much enhances the price of everything, must set an additional value on those noble talents of the human mind.

Modesty may be understood in different senses, even abstracted from chastity, which has been already treated of. It sometimes means that tenderness and nicety of honour, that apprehension of blame, that dread of intrusion or injury towards others, that *pudor* which is the proper guardian of every kind of virtue and a sure preservative against vice and corruption. But its most usual meaning is when it is opposed to *impudence* and *arrogance*, and expresses a diffidence of our own judgment and a due attention and regard for others. In young men chiefly this quality is a sure sign of good sense, and is also the certain means of augmenting that endowment, by preserving their ears open to instruction and making them still grasp after new attainments. But it has a further charm to every spectator by flattering every man's vanity and presenting the appearance of a docile pupil, who receives with proper attention and respect every word they utter.

Men have, in general, a much greater propensity to overvalue than undervalue themselves, notwithstanding the opinion of Aristotle.¹ This makes us more jealous of the excess on the former side, and causes us to regard with a peculiar indulgence all tendency to modesty and self-diffidence, as esteeming the danger less of falling into any vicious extreme of that nature. It is thus, in countries where men's bodies are apt to exceed in corpulency, personal beauty is placed in a much greater degree of slenderness than in countries where that is the most usual defect. Being so often struck with instances of one species of deformity, men think they can never keep at too great a distance from it, and wish always to have a leaning to the opposite side. In like manner, were the door opened to

self-praise, and were Montaigne's maxim observed, that one should say as frankly, *I have sense, I have learning, I have courage, beauty, or wit*, as it is sure we often think so—were this the case, I say, everyone is sensible that such a flood of impertinence would break in upon us as would render society wholly intolerable. For this reason custom has established it as a rule, in common societies, that men should not indulge themselves in self-praise, or even speak much of themselves; and it is only among intimate friends, or people of very manly behaviour, that one is allowed to do himself justice. Nobody finds fault with Maurice, Prince of Orange, for his reply to one who asked him whom he esteemed the first general of the age: *The Marquis of Spinola*, said he, *is the second*; though it is observable that the self-praise implied is here better implied than if it had been directly expressed without any cover or disguise.

He must be a very superficial thinker who imagines that all instances of mutual deference are to be understood in earnest, and that a man would be more estimable for being ignorant of his own merits and accomplishments. A small bias towards modesty, even in the internal sentiment, is favourably regarded, espe-

¹ *Ethic. ad Nicomachum.*

to others; the vicious excess of the former virtue—namely, insolence or haughtiness—is immediately disagreeable to others; the excess of the latter is so to the possessor. Thus are the boundaries of these duties adjusted.

A desire of fame, reputation, or a character with others, is so far from being blamable that it seems inseparable from virtue, genius, capacity, and a generous or noble disposition. An attention even to trivial matters, in order to please, is also expected and demanded by society, and no one is surprised if he find a man in company to observe a greater elegance of dress and more pleasant flow of conversation than when he passes his time at home and with his own family. Whence, then, consists vanity, which is so justly regarded as a fault or imperfection? It seems to consist chiefly in such an intemperate display of our advantages, honours, and accomplishments in such an importunate and open demand of praise and admiration—as is offensive to others, and encroaches too far on *their* secret vanity and ambition. It is, besides, a sure symptom of the want of true dignity and elevation of mind, which is so great an ornament in any character. For why doth impatient desire of applause, as if of us were not justly entitled to it, and can we not reasonably expect that it would extreme attend you? Why so anxious to who regus of the great company which

Many a pret; the obliging things which contribute to you; the honours, the distinction by which you met with; as if these agreeable goes of course, and what we writer first, to ourselves have imagined mind in call. In that of them?

As he, with out last, proper regard to age, and *flaminia* regardation in the world, nisphe, or to the qualities which assigne not s e must be to others, and as we at greater good nature praise and the p with ease to the behaviour in they cry, and amine; a woman—cont.

agdon, on parits first qualities uel, s evident e, which action is as if easts ejected e, with d and tension ties, or sentiment. ay resp, and ano, in tions It is here est of it, e be actor, e; a. of les of art to re, and wo, disap, a. of d indifferent. A and raxo, t

nfidant, who has no nions. d e, virtue the catastrophe, ought, and e, son, hers,

indecorum which is explained so much at large by Cicero in his *Offices*.

Among the other virtues, we may also give cleanliness a place, since it naturally renders us agreeable to others, and is no inconsiderable source of love and affection. No one will deny that a negligence in this particular is a fault, and, as faults are nothing but smaller vices, and this fault can have no other origin than the uneasy sensation which it excites in others, we may in this instance, seemingly so trivial, clearly discover the origin of moral distinctions, about which the learned have involved themselves in such mazes of perplexity and error.

But besides all the *agreeable* qualities the origin of whose beauty we can in some degree explain and account for, there still remains something mysterious and inexplicable, which conveys an immediate satisfaction to the spectator; but how, or why, or for what reason he cannot pretend to determine. There is a manner, a grace, an ease, a gentleness, an I-know-not-what, which some men possess above others, which is very different from external beauty and comeliness, and which, however, catches our affection almost as suddenly and powerfully. And though this *manner* be chiefly talked of in the passion between the sexes, where the concealed magic is easily explained, yet surely much of it prevails in all our estimation of characters, and forms no inconsiderable part of personal merit. This class of accomplishments, therefore, must be trusted entirely to the blind but sure testimony of taste and sentiment, and must be considered as a part of ethics left by nature to baffle all the pride of philosophy and make her sensible of her narrow boundaries and slender acquisitions.

We approve of another, because of his wit, politeness, modesty, decency, or any agreeable quality which he possesses, although he be not of our acquaintance, nor has ever given us any entertainment by means of these accomplishments. The idea which we form of their effect on his acquaintance has an agreeable influence on our imagination, and gives us the sentiment of approbation. This principle enters into all the judgments which we form concerning manners and characters.

SECTION IX.

CONCLUSION

PART I.

It may justly appear surprising that any man in so late an age should find it requisite to prove by elaborate reasoning that personal merit consists altogether in the possession of mental qualities, *useful* or *agreeable* to the *person himself* or to *others*. It might be expected that this principle would have occurred even to the first rude, unpractised inquirers concerning morals, and been received from its own evidence without any argument or disputation. Whatever is valuable in any kind so naturally classes itself under the division of *useful* or *agreeable*, the *utile* or the *dulce*, that it is not easy to imagine why we should ever seek further, or consider the question as a matter of nice research or inquiry. And as everything useful or agreeable must possess these qualities with regard either to the *person himself* or to *others*, the complete delineation or description of merit seems to be performed as naturally as a shadow is cast by the sun or an image is reflected upon water. If the ground on which the shadow is cast be not broken and uneven, nor the surface from which the image is reflected disturbed and confused, a just figure is immediately presented without any art or attention. And it seems a reasonable presumption that systems and hypotheses have perverted our natural understanding, when a theory so simple and obvious could so long have escaped the most elaborate examination.

But, however the case may have fared with philosophy, in common life these principles are still implicitly maintained; nor is any other topic of praise or blame ever recurred to, when we employ any panegyric or satire, any applause or censure of human action and behaviour. If we observe men in every intercourse of business or pleasure, in every discourse and conversation, we shall find them nowhere, except in the schools, at any loss upon this subject. What so natural, for instance, as the following dialogue

You are very happy, we shall suppose one to say, addressing himself to another, that you have given your daughter to Cleanthes. He is a man of honour and humanity. Everyone who has any intercourse with him is sure of *fair* and *kind* treatment.¹ I congratulate you, too, says another, on the promising expectations of this son-in-law, whose assiduous application to the study of the laws, whose quick penetration and early knowledge both of men and business, prognosticate the greatest honours and advancement.² You surprise me, replies a third, when you talk of Cleanthes as a man of business and application. I met him lately in a circle of the gayest company, and he was the very life and soul of our conversation; so much wit with good manners; so much gallantry without affectation; so much ingenious

their natural, unprejudiced reason, without the delusive glosses of superstition and false religion. Celibacy, fasting, penance, mortification, self-denial, humility, silence, solitude, and the whole train of monkish virtues—for what reason are they everywhere rejected by men of sense but because they serve to no manner of purpose; neither advance a man's fortune in the world, nor render him a more valuable member of society; neither qualify him for the entertainment of company, nor increase his power of self-enjoyment? We observe, on the contrary, that they cross all these desirable ends, stupefy the understanding and harden the heart, obscure the fancy and sour the temper. We justly, therefore, transfer them to the opposite column, and place them in the catalogue of vices; nor has any superstition force sufficient among men of the world to pervert entirely these natural sentiments. A gloomy, hare-brained enthusiast, after his death, may have a place in the calendar, but will scarcely ever be admitted, when alive, into intimacy and society, except by those who are as delirious and dismal as himself.

It seems a happiness in the present story that it enters not into that vulgar of vanity concerning the degrees of benevolence or self-love which prevail in human nature, a dispute which is never likely to who regains issue, both because men who

Many of our part are not easily convinced, arbitrary are the phenomena which can be ascribed by either side are so dispersed, Greek and goes and subject to so many inter-riter first, to signify is scarcely possible accu-nd in fall. In; them, or draw from as he, without last, rate inference or con-temminacy regardent for our present ispi-er to be rewarded—what surely, isigne not s e must absurdity, cannot be ues and greatness, good nature, benevolence, the way with ease to go our bosom; they cry, anearmine, human kind; cont.

ardor, p. on parents first-nts of the el, a evident years disagree, action, generous asts subjected to wile and tension, ask; let intmen. day respect, and ano's, in hand imities. el of it, and these dining direct is here esse, busine, wo, if disap, a as of art to re, and rae, to a, a l indifferent. A and rae, to a, a fidant, who has no n. and d e. virtue the catastrophe, ought, and d e. son hers, cre.

general sentiment of blame and approbation—a tendency, however faint, to the objects of the one, and a proportionable aversion to those of the other. Nor will those reasoners who so earnestly maintain the predominant selfishness of human kind be anywise scandalised at hearing of the weak sentiments of virtue implanted in our nature. On the contrary, they are found as ready to maintain the one tenet as the other; and their spirit of satire (for such it appears, rather than of corruption) naturally gives rise to both opinions, which have, indeed, a great and almost an indissoluble connection together.

Avarice, ambition, vanity, and all passions vulgarly, though improperly, comprised under the denomination of *self-love*, are here excluded from our theory concerning the origin of morals, not because they are too weak, but because they have not a proper direction for that purpose. The notion of morals implies some sentiment common to all mankind, which recommends the same object to general approbation, and makes every man, or most men, agree in the same opinion or decision concerning it. It also implies some sentiment so universal and comprehensive as to extend to all mankind, and render the actions and conduct even of the persons the most remote an object of applause or censure, according as they agree or disagree with that rule of right which is established. These two requisite circumstances belong alone to the sentiment of humanity here insisted on. The other passions produce in every breast many strong sentiments of desire and aversion, affection and hatred; but these neither are felt so much in common, nor are so comprehensive, as to be the foundation of any general system and established theory of blame or approbation.

When a man denominates another his *enemy*, his *rival*, his *antagonist*, his *adversary*, he is understood to speak the language of self-love, and to express sentiments peculiar to himself and arising from his particular circumstances and situation. But when he bestows on any man the epithets of *vicious* or *odious* or *depraved*, he then speaks another language, and expresses sentiments in which he expects all his audience are to concur with him. He must here, therefore, depart from his private and particular situation, and must choose a point of view common to him with others; he must love some universal principle of the

human frame, and touch a string to which all mankind have an accord and symphony. If he mean, therefore, to express that this man possesses qualities whose tendency is pernicious to society, he has chosen this common point of view, and has touched the principle of humanity, in which every man, in some degree, concurs. While the human heart is compounded of the same elements as at present, it will never be wholly indifferent to public good, nor entirely unaffected with the tendency of characters and manners. And, though this affection of humanity may not generally be esteemed so strong as vanity or ambition, yet, being common to all men, it can alone be the foundation of morals, or of any general system of blame or praise. One man's ambition is not another's ambition, nor will the same event or object satisfy both; but the humanity of one man is the humanity of everyone, and the same object touches this passion in all human creatures.

But the sentiments which arise from humanity are not only the same in all human creatures and produce the same approbation or censure, but they also comprehend all human creatures; nor is there anyone whose conduct or character is not by their means an object to everyone of censure or approbation. On the contrary, those other passions commonly denominated selfish both produce different sentiments in each individual, according to his particular situation; and also contemplate the greater part of mankind with the utmost indifference and unconcern. Whoever has a high regard and esteem for me flatters my vanity; whoever expresses contempt mortifies and displeases me; but, as my name is known but to a small part of mankind, there are few who come within the sphere of this passion, or excite on its account either my affection or disgust. But if you represent a tyrannical, insolent, or barbarous behaviour in any country or in any age of the world, I soon carry my eye to the pernicious tendency of such a conduct, and feel the sentiment of repugnance and displeasure towards it. No character can be so remote as to be in this light wholly indifferent to me. What is beneficial to society or to the person himself must still be preferred. And every quality or action of every human being must by this means be ranked under some class or denomination expressive of general censure or applause.

What more, therefore, can we ask to distinguish the sentiments dependent on humanity from those connected with another passion, or to satisfy us why the former are the origin of morals, not the latter? Whatever conduct gains approbation by touching my humanity, procures also the applause of all mankind by affecting the same principle in them; but what serves my avarice or ambition pleases these passions in me alone and affects not the avarice and ambition of the rest of mankind. There is no circumstance of conduct in any man, provided it be of a beneficial tendency, that is not as common to my humanity, however remote the person; but every man so far removed as neither to cross nor serve my avarice and ambition is regarded as wholly indifferent by those passions. The distinction, therefore, between these species of sentiment being so great and evident, language must soon be moulded upon it, and must invent a peculiar set of terms in order to express these universal sentiments of censure or approbation which arise from humanity, or from views of general usefulness and its contrary. Virtue and vice become then known, morals are recognised, certain general ideas are framed of human conduct and behaviour; such measures are expected from men in such situations. This action is determined to be conformable to our abstract rule, that other contrary. And by such universal principles are the particular sentiments of self-love frequently controlled and limited.

From instances of popular tumults,

* It seems certain, both from reason and experience, that a rude, untaught savage regulates chiefly his love and hatred by the ideas of private utility and injury, and has but faint conceptions of a general rule or system of behaviour. The man who stands opposite to him, while he hates heartily, not only for the present moment, which is almost unavoidable, but for ever after; nor is he satisfied without the most extreme punishment and vengeance. But we, accustomed to society and to more cultured reflections, consider that this man is serving his own country and community; that any man in the same situation would do the same; that we ourselves in like circumstances observe a like conduct; that, in general, human society is best supported on such maxims; and by these suppositions and views we correct in some measure our ruder and narrower passions. And though much of our friendship and enmity be still regulated by private considerations of benefit and harm, we pay at least this homage to general rules which we are accustomed to respect, that we commonly pervert our adversary's conduct by imputing malice or injustice to him in order to give vent to those passions which arise from self-love and private interest. When the heart is full of rage it never wants pretences of this nature; though sometimes as frivolous as those from which Horace, being almost crushed by the fall of a tree, affects to accuse of parricide the first planter of it.

passions, actions, panics, and of all
essions which are shared with a multi-
ide, we may learn the influence of society
xciting and supporting any emotion;
the most ungovernable disorders
raised, we find, by that means from
are lightest and most frivolous occasions.
the was no very cruel, though, perhaps,
Soldust legislator, who punished neuters
an ul wars; a few, I believe, would
in civ cases incur the penalty were their
in suc and discorse allowed sufficient
affectiv them. No selfishness and
to abny philosophy have there force
source to support total coolness and
indifferly, etc, and must be more or less
than man who kindles not in the common
blaze. What wonder, then, that moral
sentiments are found of such influence in
life, though springing from principles
which may appear at first sight somewhat
small and delicate? But these princi-
ples, we must remark, are social and
universal; they form, in a manner, the
party of humankind against vice or dis-
order, its common enemy. And as the
benevolent concern for others is diffused,
in a greater or less degree, over all men,
and is the same in all, it occurs more
frequently in discourse, is cherished by
society and conversation, and the blame
and approbation consequent on it are
thereby roused from that lethargy into
which they are probably lulled in solitary
and uncultivated nature. Other passions,
though perhaps originally stronger, yet
being selfish and private, are often over-
powered by its force, and yield the dominion
of our breast to those social and public
principles.

Another spring of our constitution that
brings a great addition of force to moral
sentiments is the love of fame, which
rules with such uncontrolled authority in
all generous minds, and is often the
grand object of all their designs and
undertakings. By our continual and
earnest pursuit of a character, a name, a
reputation in the world, we bring our own
deportment and conduct frequently in
review, and consider how they appear in
the eyes of those who approach and regard
us. This constant habit of surveying our-
selves, as it were, in reflection keeps alive
all the sentiments of right and wrong, and
begets in noble natures a certain reverence
for themselves as well as others, which is
the surest guardian of every virtue. The
animal conveniences and pleasures sink
gradually in their value; while every

inward beauty and moral grace is studi-
ously acquired, and the mind is accom-
plished in every perfection which
can adorn or embellish a rational
creature.

Here is the most perfect morality with
which we are acquainted; here is dis-
played the force of many sympathies.
Our moral sentiment is itself a feeling
chiefly of that nature, and our regard to
a character with others seems to arise
only from a care of preserving a character
with ourselves; and, in order to attain
this end, we find it necessary to prop our
tottering judgment on the correspondent
approbation of mankind.

But, that we may accommodate matters,
and remove, if possible, every difficulty,
let us allow all these reasonings to be
false. Let us allow that, when we resolve
the pleasure which arises from views of
utility into the sentiments of humanity
and sympathy, we have embraced a wrong
hypothesis. Let us confess it necessary
to find some other explication of that
applause which is paid to objects, whether
inanimate, animate, or rational, if they
have a tendency to promote the welfare
and advantage of mankind. However
difficult it be to conceive that an object
is approved of on account of its tendency
to a certain end, while the end itself is
totally indifferent, let us swallow this
absurdity and consider what are the con-
sequences. The preceding delineation or
definition of Personal Merit must still
retain its evidence and authority; it must
still be allowed that every quality of the
mind which is *useful or agreeable to the
person himself* or to others communicates
a pleasure to the spectator, engages his
esteem, and is admitted under the honour-
able denomination of virtue or merit. Are
not justice, fidelity, honour, veracity,
allegiance, chastity, esteemed solely on
account of their tendency to promote the
good of society? Is not that tendency
inseparable from humanity, benevolence,
lenity, generosity, gratitude, moderation,
tenderness, friendship, and all the other
social virtues? Can it possibly be doubted
that industry, discretion, frugality, secrecy,
order, perseverance, forethought, judg-
ment, and this whole class of virtues and
accomplishments, of which many pages
would not contain the catalogue—can it
be doubted, I say, that the tendency of
these qualities to promote the interest and
happiness of their possessor is the sole
foundation of their merit? Who can

dispute that a mind which supports a perpetual serenity and cheerfulness, a noble dignity and undaunted spirit, a tender affection and goodwill to all around, as it has more enjoyment within itself, is also a more animating and rejoicing spectacle than if dejected with melancholy, tormented with anxiety, irritated with rage, or sunk into the most abject baseness and degeneracy? And as to the qualities immediately agreeable to others, they speak sufficiently for themselves, and he must be unhappy indeed, either in his own temper or in his situation and company, who has never perceived the charms of a facetious wit or flowing affability, of a delicate modesty or decent genteelness of address and manner.

I am sensible that nothing can be more unphilosophical than to be positive or dogmatical on any subject, and that, even if excessive scepticism could be maintained, it would not be more destructive to all just reasoning and inquiry. I am convinced that, where men are the most sure and arrogant, they are commonly the most mistaken, and have there given reins to passion without that proper deliberation and suspense which can alone secure them from the grossest absurdities. Yet I must confess that this enumeration puts the matter in so strong a light that I cannot, *at present*, be more assured of any truth which I learn from reasoning and argument than that personal merit consists entirely in the usefulness or agreeableness of qualities to the person himself possessed of them, or to others who have any intercourse with him. But when I reflect that, though the bulk and figure of the earth have been measured and delineated, though the motions of the tides have been accounted for, the order and economy of the heavenly bodies subjected to their proper laws, and Infinity itself reduced to calculation, yet men still dispute concerning the foundation of their moral duties—when I reflect on this, I say, I fall back into diffidence and scepticism, and suspect that an hypothesis so obvious, had it been a true one, could, long ere now, have been received by the unanimous suffrage and consent of mankind.

PART II.

Having explained the moral approbation attending merit or virtue, there remains nothing but briefly to consider our

interested obligation to it, and to inquire whether every man who has any regard to his own happiness and welfare will not best find his account in the practice of every moral duty. If this can be clearly ascertained from the foregoing theory, we shall have the satisfaction to reflect that we have advanced principles which not only, it is hoped, will stand the test of reasoning and inquiry, but may contribute to the amendment of men's lives and their improvement in morality and social virtue. And though the philosophical truth of any proposition by no means depends on its tendency to promote the interests of society, yet a man has but a bad grace who delivers a theory, however true, which, he must confess, leads to a practice dangerous and pernicious. Why rise into those corners of nature which spread a nuisance all around? Why dig up the pestilence from the pit in which it is buried? The ingenuity of your researches may be admired, but your systems will be detested; and mankind will agree, if they cannot refute them, to sink them, at least, in eternal silence and oblivion. Truths which are *pernicious* to society, if any such there be, will yield to errors which are salutary and *advantageous*.

But what philosophical truths can be more advantageous to society than those here delivered, which represent Virtue in all her genuine and most engaging charms and make us approach her with ease, familiarity, and affection? The dismal dress falls off with which many divines and some philosophers have covered her, and nothing appears but gentleness, humanity, beneficence, affability; nay, even, at proper intervals, play, frolic, and gaiety. She talks not of useless austerities and rigours, suffering and self-denial. She declares that her sole purpose is to make her votaries and all mankind, during every instant of their existence, if possible, cheerful and happy; nor does she ever willingly part with any pleasure but in hopes of ample compensation in some other period of their lives. The sole trouble which she demands is that of just calculation and a steady preference of the greater happiness. And if any austere pretenders approach her, enemies to joy and pleasure, she either rejects them as hypocrites and deceivers; or, if she admit them in her train, they are ranked, however, among the least favoured of her votaries.

And, indeed, to drop all figurative expression, what hopes can we ever have of engaging mankind to a practice which we confess full of austerity and rigour? Or what theory of morals can ever serve any useful purpose unless it can show, by a particular detail, that all the duties which it recommends are also the true interest of each individual? The peculiar advantage of the foregoing system seems to be that it furnishes proper mediums for that purpose.

That the virtues which are immediately *useful* or *agreeable* to the person possessed of them are desirable in a view to self-interest it would surely be superfluous to prove. Moralists, indeed, may spare themselves all the pains which they often take in recommending these duties. To what purpose collect arguments to evince that temperance is advantageous, and the excesses of pleasure hurtful, when it appears that these excesses are only denominated such because they are hurtful, and that if the unlimited use of strong liquors, for instance, no more impaired health or the faculties of the mind and body than the use of air or water, it would not be a whit more vicious or blamable?

It seems equally superfluous to prove that the *companionable* virtues of good manners and wit, decency and generosity, are more desirable than the contrary qualities. Vanity alone, without any other consideration, is a sufficient motive to make us wish for the possession of these accomplishments. No man was ever willingly deficient in this particular. All our failures here proceed from bad education, want of capacity, or a perverse and unpliant disposition. Would you have your company coveted, admired, followed, rather than hated, despised, avoided? Can anyone seriously deliberate in the case? As no enjoyment is sincere without some reference to company and society, so no society can be agreeable, or even tolerable, where a man feels his presence unwelcome, and discovers all around him symptoms of disgust and aversion.

But why, in the greater society or confederacy of mankind, should not the case be the same as in particular clubs and companies? Why is it more doubtful that the enlarged virtues of humanity, generosity, beneficence, are desirable with a view of happiness and self-interest than the limited endowments of ingenuity and

politeness? Are we apprehensive lest those social affections interfere in a greater and more immediate degree than any other pursuits with private utility, and cannot be gratified without some important sacrifice of honour and advantage? If so, we are but ill instructed in the nature of the human passions, and are more influenced by verbal distinctions than by real differences.

Whatever contradiction may vulgarly be supposed between the *selfish* and *social* sentiments or dispositions, they are really no more opposite than selfish and ambitious, selfish and revengeful, selfish and vain. It is requisite that there be an original propensity of some kind in order to be a basis to self-love by giving a relish to the objects of its pursuit, and none more fit for this purpose than benevolence or humanity. The goods of fortune are spent in one gratification or another. The miser who accumulates his annual income and lends it out at interest has really spent it in the gratification of his avarice. And it would be difficult to show why a man is more a loser by a generous action than by any other method of expense, since the utmost which he can attain by the most elaborate selfishness is the indulgence of some affection.

Now, if life without passion must be altogether insipid and tiresome, let a man suppose that he has full power of modelling his own disposition, and let him deliberate what appetite or desire he would choose for the foundation of his happiness and enjoyment. Every affection, he would observe, when gratified by success, gives a satisfaction proportioned to its force and violence; but besides this advantage, common to all, the immediate feeling of benevolence and friendship, humanity and kindness, is sweet, smooth, tender, and agreeable, independent of all fortune and accidents. These virtues are, besides, attended with a pleasing consciousness or remembrance, and keep us in humour with ourselves as well as others, while we retain the agreeable reflection of having done our part towards mankind and society. And though all men show a jealousy of our success in the pursuits of avarice and ambition, yet are we almost sure of their goodwill and good wishes so long as we persevere in the paths of virtue and employ ourselves in the execution of generous plans and purposes. What other passion is there where we shall find so many advantages united, an

agreeable sentiment, a pleasing consciousness, a good reputation? But of these truths, we may observe, men are of themselves pretty much convinced; nor are they deficient in their duty to society because they would not wish to be generous, friendly, and humane, but because they do not feel themselves such.

Treating vice with the greatest leniency, and making it all possible concessions, we must acknowledge that there is not in any instance, the smallest pretext for giving it the preference above virtue with a view of self-interest except, perhaps, in the case of justice where a man taking things in their own light may often seem to be closer by his integrity. And though it is allowed that without regard to property no society could subsist yet, according to the imperfect way in which human affairs are conducted, a sensible knave, in particular incident, may think that an act of iniquity or infidelity will make a considerable addition to his fortune withoutcurring any considerable breach in the social union and confederacy. That *honesty is the best policy* may be a good general rule, but is liable to many exceptions, and he it may perhaps be thought, conducts himself with most wisdom who observes the general rule and takes advantage of all the exceptions.

I must confess that if a man think that this reasoning much recommends it, were it would be a little difficult to find any which will to him upon satisfactory and convincing. If his heart rebel against such pernicious maxims, if he feel no reluctance to the thought of villainy or baseness he has indeed lost a considerable motive to virtue and we may expect that his practice will be answerable to his speculation. But in

all ingenuous natures the antipathy to treachery and roguery is too strong to be counterbalanced by any views of profit or pecuniary advantage. Inward peace of mind, consciousness of integrity, a satisfactory review of our own conduct these are circumstances very requisite to happiness, and will be cherished and cultivated by every honest man who feels the importance of them.

Such a one has, besides, the frequent satisfaction of coming knaves with all their pretended cunning and abilities, betrayed by their own maxims; and, while they purpose to cheat with moderation and receive a tempting incident occurs, nature is kind and they give into the snare whence they can never extricate themselves without a total loss of reputation and the forfeiture of all future trust and confidence with mankind.

But were they ever so secret and successful the honest man still has many tructures of philosophy or even common observation and experience will discover that in the long run, in the end, the great danger and loss sacrificed the inevitable consequence of commerce with them is the total loss of the acquisition of wealth and power. How little is requisite to apply the maxim of nature. And in view to *pleasure*, what can be more than the unburdened satisfaction of a virtuous society, study, exertion and the common beauties of nature furnish all the peaceful reflection on one's own conduct what comparison, I say, between the cold and the feverish emptiness of luxury and expense? In sensual pleasures, indeed we are really without price, both because they are sold with price in their attainment, and at once in their enjoyment.

APPENDIX I.

CONCERNING MORAL SENTIMENT

If the foregoing hypothesis be received, it will now be easy for us to determine the question first started,¹ concerning the general principles of morals; and, though we postponed the decision of that question lest it should then involve us in intricate speculations, which are unfit for moral discourses, we may resume it at present, and examine how far either *reason* or *sentiment* enters into all decisions of praise or censure.

One principal foundation of moral praise being supposed to lie in the usefulness of any quality or action, it is evident that *reason* must enter for a considerable share in all decisions of this kind, since nothing but that faculty can instruct us in the tendency of qualities and actions, and point out their beneficial consequences to society and to their possessor. In many cases this is an affair liable to great controversy, doubts may arise, opposite interests may occur, and a preference must be given to one side from very nice views, and a small overbalance of utility. This is particularly remarkable in questions with regard to justice, as is, indeed, natural to suppose from that species of utility which attends this virtue.² Were every single instance of justice, like that of benevolence, useful to society, this would be a more simple state of the case, and seldom liable to great controversy. But as single instances of justice are often pernicious in their first and immediate tendency, and as the advantage to society results only from the observance of the general rule, and from the concurrence and combination of several persons in the same equitable conduct, the case here becomes more intricate and involved. The various circumstances of society, the various consequences of any practice, the various interests which may be proposed these, on many occasions, are doubtful, and subject to great discussion and inquiry. The object of municipal laws is to fix all

the questions with regard to justice; the debates of civilians, the reflections of politicians, the precedents of history and public records, are all directed to the same purpose. And a very accurate *reason* or *judgment* is often requisite to give the true determination amid such intricate doubts arising from obscure or opposite utilities.

But though reason, when fully assisted and improved, be sufficient to instruct us in the pernicious or useful tendency of qualities and actions, it is not alone sufficient to produce any moral blame or approbation. Utility is only a tendency to a certain end, and, were the end totally indifferent to us, we should feel the same indifference towards the means. It is requisite a *sentiment* should here display itself, in order to give a preference to the useful above the pernicious tendencies. This sentiment can be no other than feeling for the happiness of mankind and resentment of their misery, since these are the different ends which virtue and vice have a tendency to promote. Here, therefore, *reason* instructs us in the several tendencies of actions, and *humanity* makes a distinction in favour of those which are useful and beneficial.

This partition between the faculties of understanding and sentiment in all moral decisions seems clear from the preceding hypothesis. But I shall suppose that hypothesis false; it will then be requisite to look out for some other theory that may be satisfactory, and I dare venture to affirm that none such will ever be found so long as we suppose reason to be the sole source of morals. To prove this it will be proper to weigh the five following considerations.

I. It is easy for a false hypothesis to maintain some appearance of truth while it keeps wholly in generals, makes use of undefined terms, and employs comparisons instead of instances. This is particularly remarkable in that philosophy which ascribes the discernment of all moral distinctions to reason alone, without

¹ Sect. I.

² See App. III.

the concurrence of sentiment. It is impossible that in any particular instance this hypothesis can so much as be rendered intelligible, whatever specious figure it may make in general declamations and discourses. Examine the crime of *ingratitude*, for instance, which has place wherever we observe good-will expressed and known together with good offices performed on the one side, and return of ill-will or indifference with ill offices or neglect on the other; in all these circumstances, and examine by your reason alone in what consists the demerit or blame. You never will come to any issue or conclusion.

Reason judges either of *matters of fact* or of *relations*. Inquire, then, *first*, where is that matter of fact which we here call *crime*? point it out, determine the time of its existence, describe its essence or nature, explain the sense or faculty to which it discovers itself. It resides in the mind of the person who is ungrateful. He must, therefore, feel it and be conscious of it. But nothing is there except the passion of ill-will or absolute indifference. You cannot say that the evil then resides always and in all circumstances are crimes. No, they are only crimes when directed towards persons who have before expressed and displayed good will towards us. Consequently we may infer that the crime of ingratitude is not any particular individual *fact* but arises from a complication of circumstances which being presented to the spectator excite the *sentiment* of blame by the particular structure and fabric of his mind.

This representation, you say, is false. Crime, indeed, consists not in a particular *fact*, of whose reality we are assured by *reason*, but it consists in certain *moral relations*, discovered by reason, in the same manner as we discover by reason the truths of geometry or algebra. But what are the relations, I ask, of which you here talk? In the case stated above I see first good will and good offices in one person, then ill-will and ill offices in the other. Between these there is a relation of *contrariety*. Does the crime consist in that relation? But suppose a person bore me ill-will or did me ill offices, and I in return were indifferent towards him or did him good offices. Here is the same relation of *contrariety*, and yet my conduct is often highly laudable. Twist and turn this matter as much as you will, you can never rest the morality on rela-

tion, but must have recourse to the decisions of sentiment.

When it is affirmed that two and three are equal to the half of ten, this relation of equality I understand perfectly. I conceive that if ten be divided into two parts of which one has as many units as the other, and if any of these parts be compared to two added to three it will contain as many units as that compound number. But when you draw thence a comparison to moral relations I own that I am altogether at a loss to understand you. A moral action or crime such as ingratitude is a complicated object. Does the morality consist in the relation of its parts to each other? How? After what manner? Specify the relation, be more particular and explicit in your propositions and you will easily see their falsehood.

No, if you the morality consists in the relation of actions to the rule of right; and they are denominated good or ill according as they agree or disagree with it. What then, is this rule of right? In what does it consist? How is it determined? By reason, you say, which examines the moral relations of actions. So that moral relations are determined by the comparison of action to a rule. And that rule is determined by considering the moral relation of object. Is not this line reasoning?

All this metaphysics is vanity. That is enough there need nothing more to give us a strong presumption of falsehood. Yet reply I here are metaphysics surely; but they are all on your side, who advance in this false hypothesis which can never be made intelligible nor quadrate with any particular instance or illustration. The hypothesis which we embrace is plain. It maintains that morality is determined by sentiment. It defines virtue to be *whatever mental action or quality is it that a spectator the *feeling* sentiment of approbation, and vice the contrary*. We then proceed to examine a plain matter of fact—to wit, what actions have this influence. We consider all the circumstances in which these actions take place and thence endeavour to extract some general observations with regard to these sentiments. If you call this metaphysics, and find anything abstruse here, you need only conclude that your turn of mind is not suited to the moral sciences.

II. When a man at any time deliberates,

concerning his own conduct (as whether he had better, in a particular emergence, assist a brother or a benefactor), he must consider these separate relations with all the circumstances and situations of the persons in order to determine the superior duty and obligation; and in order to determine the proportion of lines in any triangle it is necessary to examine the nature of that figure and the relation which its several parts bear to each other. But, notwithstanding this appearing similarity in the two cases, there is at bottom an extreme difference between them. A speculative reasoner concerning triangles or circles considers the several known and given relations of the parts of these figures, and thence infers some unknown relation which is dependent on the former. But in moral deliberations we must be acquainted beforehand with all the objects and all their relations to each other, and from a comparison of the whole fix our choice or approbation. No new fact to be ascertained; no new relation to be discovered. All the circumstances of the case are supposed to be laid before us ere we can fix any sentence of blame or approbation. If any material circumstance be yet unknown or doubtful, we must first employ our inquiry or intellectual faculties to assure us of it, and must suspend for a time all moral decision or sentiment. While we are ignorant whether a man were aggressor or not, how can we determine whether the person who killed him be criminal or innocent? But after every circumstance, every relation, is known, the understanding has no further room to operate, nor any object on which it could employ itself. The approbation or blame which then ensues cannot be the work of the judgment, but of the heart, and is not a speculative proposition or affirmation, but an active feeling or sentiment. In the disquisitions of the understanding, from known circumstances and relations we infer some new and unknown. In moral decisions all the circumstances and relations must be previously known, and the mind, from the contemplation of the whole, feels some new impression of affection or disgust, esteem or contempt, approbation or blame.

Hence the great difference between a mistake of *fact* and one of *right*; and hence the reason why the one is commonly criminal, and not the other. When Oedipus killed Laius he was ignorant of

the relation, and from circumstance innocent and involuntary formed erroneous opinions concerning the action which he committed. But when Nero killed Agrippina all the relations between himself and the person, and all the circumstances of the fact, were previously known to him; but the motive of revenge, or fear, or interest, prevailed in his savage heart over the sentiments of duty and humanity. And when we express that detestation against him to which he himself in a little time became insensible, it is not that we see any relations of which he was ignorant, but that for the rectitude of our disposition we feel sentiments against which he was hardened from flattery and a long perseverance in the most enormous crimes. In these sentiments, then, not in a discovery of relations of any kind, do all moral determinations consist. Before we can pretend to form any decision of this kind everything must be known and ascertained on the side of the object or action. Nothing remains but to feel on our part some sentiment of blame or approbation whence we pronounce the action criminal or virtuous.

III. This doctrine will become still more evident if we compare moral beauty with natural, to which in many particulars it bears so near a resemblance. It is on the proportion, relation, and position of parts that all natural beauty depends; but it would be absurd thence to infer that the perception of beauty, like that of truth in geometrical problems, consists wholly in the perception of relations, and was performed entirely by the understanding or intellectual faculties. In all the sciences our mind from the known relations investigates the unknown. But in all decisions of taste or external beauty all the relations are beforehand obvious to the eye, and we thence proceed to feel a sentiment of complacency or disgust, according to the nature of the object and disposition of our organs.

Euclid has fully explained all the qualities of the circle, but has not in any proposition said a word of its beauty. The reason is evident. The beauty is not a quality of the circle. It lies not in any part of the line whose parts are equally distant from a common centre. It is only the effect which that figure produces upon the mind, whose peculiar fabric of structure renders it susceptible of such

sentiments. In vain would you look for it in the circle, or seek it either by your senses or by mathematical reasoning in all the properties of that figure.

Attend to Palladio and Perrault while they explain all the parts and proportions of a pillar. They talk of the cornice and frieze and base and entablature and shaft and architrave, and give the description and position of each of these members. But should you ask the description and position of its beauty, they would readily reply that the beauty is not in any of the parts or members of a pillar, but results from the whole when that complicated figure is presented to an intelligent mind susceptible to those finer sensations. Till such a spectator appear there is nothing but a figure of such particular dimensions and proportions; from his sentiments alone arise its elegance and beauty.

Again, attend to Cicero while he paints the crimes of a Verres or a Catiline. You must acknowledge that the moral turpitude results in the same manner from the contemplation of the whole when presented to a being whose organs have such a particular structure and formation. The orator may paint rage, insolence, barbarity on the one side; meekness, suffering, sorrow, innocence on the other. But if you feel no indignation or compassion arise in you from this complication of circumstances, you would in vain ask him in what consists the crime or villainy which he so vehemently exclaims against; at what time or on what subject it first began to exist; and what has a few months afterwards become of it, when every disposition and thought of all the actors is totally altered or annihilated? No satisfactory answer can be given to any of these questions upon the abstract hypothesis of morals; and we must at last acknowledge that the crime or immorality is no particular fact or relation which can be the object of the understanding, but arises entirely from the sentiment of disapprobation which, by the structure of human nature, we unavoidably feel on the apprehension of barbarity or treachery.

IV. Inanimate objects may bear to each other all the same relations which we observe in moral agents; though the former can never be the object of love or hatred, nor are consequently susceptible of merit or iniquity. A young tree which over-tops and destroys its parent stands

in all the same relations with Nero when he murdered Agrippina, and, if morality consisted merely in relations, would no doubt be equally criminal.

V. It appears evident that the ultimate ends of human actions can never in any case be accounted for by *reason*, but recommend themselves entirely to the sentiments and affections of mankind, without any dependence on the intellectual faculties. Ask a man *why he uses exercise*; he will answer, *because he desires to keep his health*. If you then inquire *why he desires health*, he will readily reply, *because sickness is painful*. If you push your inquiries further and desire a reason *why he hates pain*, it is impossible he can ever give any. This is an ultimate end, and is never referred to any other object.

Perhaps to your second question, *why he desires health*, he may also reply that *it is necessary for the exercise of his calling*. If you ask *why he is anxious on that head*, he will answer *because he desires to get money*. If you demand *Why?* *It is the instrument of pleasure*, says he. And beyond this it is an absurdity to ask for a reason. It is impossible there can be a progress *in infinitum*; and that one thing can always be a reason why another is desired. Something must be desirable on its own account, and because of its immediate accord or agreement with human sentiment and affection.

Now, as virtue is an end, and is desirable on its own account, without fee and reward, merely for the immediate satisfaction which it conveys, it is requisite that there should be some sentiment which it touches, some internal taste or feeling, or whatever you may please to call it, which distinguishes moral good and evil, and which embraces the one and rejects the other.

Thus the distinct boundaries and offices of *reason* and of *taste* are easily ascertained. The former conveys the knowledge of truth and falsehood; the latter gives the sentiment of beauty and deformity, vice and virtue. The one discovers objects as they really stand in nature, without addition and diminution; the other has a productive faculty, and, gilding or staining all natural objects with the colours borrowed from internal sentiment, raises in a manner a new creation. Reason, being cool and disengaged, is unmotive to action, and directs only the

impulse received from appetite or inclination by showing us the means of attaining happiness or avoiding misery. Taste, as it gives pleasure or pain, and thereby constitutes happiness or misery, becomes a motive to action, and is the first spring or impulse to desire and volition. From circumstances and relations, known or supposed, the former leads us to the discovery of the concealed and unknown: after all circumstances and relations are laid before us, the latter makes us feel

from the whole a new sentiment of blame or approbation. The standard of the one, being founded on the nature of things, is eternal and inflexible, even by the will of the Supreme Being; the standard of the other, arising from the eternal frame and constitution of animals, is ultimately derived from that Supreme Will which bestowed on each being its peculiar nature, and arranged the several classes and orders of existence.

APPENDIX II. OF SELF-LOVE

THERE is a principle supposed to prevail among many which is utterly incompatible with all virtue or moral sentiment; and, as it can proceed from nothing but the most depraved disposition, so in its turn it tends still further to encourage that depravity. This principle is that all *benevolence* is mere hypocrisy, friendship a cheat, public spirit a farce, fidelity a snare to procure trust and confidence; and that, while all of us, at bottom, pursue only our private interest, we wear these fair disguises in order to put others off their guard, and expose them the more to our wiles and machinations. What heart one must be possessed of who possesses such principles, and who feels no internal sentiment that belies so pernicious a theory, it is easy to imagine; and also what degree of affection and benevolence he can bear to a species whom he represents under such odious colours, and supposes so little susceptible of gratitude or any return of affection. Or, if we should not ascribe these principles wholly to a corrupted heart, we must at least account for them from the most careless and precipitate examination. Superficial reasoners, indeed, observing many false pretences among mankind, and feeling, perhaps, a very strong restraint in their own disposition, might draw a general and a hasty conclusion that all is equally corrupted, and that men—different from

all other animals, and indeed from all other species of existence—admit of no degrees of good or bad, but are, in every instance, the same creatures under different disguises and appearances.

There is another principle somewhat resembling the former, which has been much insisted on by philosophers, and has been the foundation of many a system: that, whatever affection one may feel, or imagine he feels, for others, no passion is, or can be, disinterested; that the most generous friendship, however sincere, is a modification of self-love; and that, even unknown to ourselves, we seek only our own gratification while we appear the most deeply engaged in schemes for the liberty and happiness of mankind. By a turn of imagination, by a refinement of reflection, by an enthusiasm of passion, we seem to take part in the interests of others and imagine ourselves divested of all selfish considerations; but, at bottom, the most generous patriot and most niggardly miser, the bravest hero and most abject coward, have, in every action, an equal regard to their own happiness and welfare.

Whoever concludes from the seeming tendency of this opinion that those who make profession of it cannot possibly feel the true sentiments of benevolence or have any regard for genuine virtue, will often find himself, in practice, very much

mistaken. Probity and honour were no strangers to Epicurus and his sect. Atticus and Horace seem to have enjoyed from nature, and cultivated by reflection, as generous and friendly dispositions as any disciple of the austere schools. And, among the modern, Hobbes and Locke, who maintained the selfish system of morals, lived irreproachable lives; though the former lay not under any restraint of religion which might supply the defects of his philosophy.

An Epicurean or a Hobhist readily allows that there is such a thing as friendship in the world without hypocrisy or disguise, though he may attempt by a philosophical chemistry to resolve the elements of this passion, if I may so speak, into those of another, and explain every affection to be self-love twisted and moulded by a particular turn of imagination into a variety of appearances. But as the same turn of imagination prevails not in every man, nor gives the same direction to the original passion, this is sufficient even according to the selfish system to make the widest difference in human characters, and denominate one man virtuous and humane, another vicious and meanly interested. I esteem the man whose self-love, by whatever means, is so directed as to give him a concern for others, and render him serviceable to society, as I hate or despise him who has no regard to anything beyond his own gratifications and enjoyments. In vain would you suggest that these characters, though seemingly opposite, are at bottom the same, and that a very inconsiderable turn of thought forms the whole difference between them. Each character, notwithstanding these inconsiderable differences, appears to me, in practice, pretty durable and untransmutable. And I find not in this more than in other subjects that the natural sentiments arising from the general appearances of things are easily destroyed by subtle reflections concerning the minute origin of these appearances. Does not the lively, cheerful colour of a countenance inspire me with complacency and pleasure, even though I learn from philosophy that all difference of complexion arises from the most minute differences of thickness in the most minute parts of the skin, by means of which a superficies is qualified to reflect one of the original colours of light and absorb the others?

But, though the question concerning the universal or partial selfishness of man be not so material as is usually imagined to morality and practice, it is certainly of consequence in the speculative science of human nature, and is a proper object of curiosity and inquiry. It may not, therefore, be unsuitable in this place to bestow a few reflections upon it.

The most obvious objection to the selfish hypothesis is that, as it is contrary to common feeling and our most unprejudiced notions, there is required the highest stretch of philosophy to establish so extraordinary a paradox. To the most careless observer there appear to be such dispositions as benevolence and generosity; such affections as love, friendship, compassion, gratitude. These sentiments have their causes, effects, objects, and operations marked by common language and observation, and plainly distinguished from those of the selfish passions. And as this is the obvious appearance of things, it must be admitted, till some hypothesis be discovered which, by penetrating deeper into human nature, may prove the former affections to be nothing but modifications of the latter. All attempts of this kind have hitherto proved fruitless, and seem to have proceeded entirely from that love of *simplicity* which has been the source of much false reasoning in philosophy. I shall not here enter into any detail on the present subject. Many able philosophers have shown the insufficiency of these systems. And I shall take for granted what I believe the smallest reflection will make evident to every impartial inquirer.

But the nature of the subject furnishes the strongest presumption that no better system will ever for the future be invented, in order to account for the origin of the benevolent from the selfish affections, and reduce all the various emotions of the

¹ Benevolence naturally divides into two kinds, the *general* and the *particular*. The first is, where we have no friendship or connection or esteem for the person, but feel only a general sympathy with him or a compassion for his pains, and a congratulation with his pleasures. The other species of benevolence is founded on an opinion of virtue, on services done us, or on some particular connections. Both these sentiments must be allowed real in human nature; but whether they will resolve into some nice considerations of self-love is a question more curious than important. The former sentiment—to wit, that of general benevolence, or humanity, or sympathy—we shall have occasion frequently to treat of in the course of this inquiry; and I assume it as real, from general experience, without any other proof.

human mind to a perfect simplicity. The case is not the same in this species of philosophy as in physics. Many an hypothesis in nature, contrary to first appearances, has been found, on more accurate scrutiny, solid and satisfactory. Instances of this kind are so frequent that a judicious as well as witty philosopher¹ has ventured to affirm, if there be more than one way in which any phenomenon may be produced, that there is general presumption for its arising from the causes which are the least obvious and familiar. But the presumption always lies on the other side in all inquiries concerning the origin of our passions and of the internal operations of the human mind. The simplest and most obvious cause which can there be assigned for any phenomenon is probably the true one. When a philosopher, in the explication of his system, is obliged to have recourse to some very intricate and refined reflections, and to suppose them essential to the production of any passion or emotion, we have reason to be extremely on our guard against so fulacious an hypothesis. The affections are not susceptible of any impression from the refinements of reason or imagination, and it is always found that a vigorous exertion of the latter faculties necessarily, from the narrow capacity of the human mind, destroys all activity in the former. Our predominant motive or intention is, indeed, frequently concealed from ourselves when it is mingled and confounded with other motives which the mind, from vanity or self-conceit, is desirous of supposing more prevalent; but there is no instance that a concealment of this nature has ever arisen from the abstruseness and intricacy of the motive. A man that has lost a friend and patron may flatter himself that all his grief arises from generous sentiments, without any mixture of narrow or interested consideration; but a man that grieves for a valuable friend, who needed his patronage and protection—how can we suppose that his passionate tenderness arises from some metaphysical regards to a self-interest which has no foundation or reality? We may as well imagine that minute wheels and springs, like those of a watch, give motion to a loaded waggon, as account for the origin of passion from such abstruse reflections.

Animals are found susceptible of kind-

ness both to their own species and to ours, nor is there in this case the least suspicion of disguise or artifice. Shall we account for all *their* sentiments, too, from refined deductions of self-interest? Or, if we admit a disinterested benevolence in the inferior species, by what rule of analogy can we refuse it in the superior?

Love between the sexes begets a complacency and good-will very distinct from the gratification of an appetite. Tenderness to their offspring in all sensible beings is commonly able alone to counterbalance the strongest motives of self-love, and has no manner of dependence on that affection. What interest can a fond mother have in view who loses her health by assiduous attendance on her sick child, and afterwards languishes and dies of grief, when freed by its death from the slavery of that attendance?

Is gratitude no affection of the human breast, or is that a word merely, without any meaning or reality? Have we no satisfaction in one man's company above another's, and no desire of the welfare of our friend, even though absence or death should prevent us from all participation in it? Or, what is it commonly that gives us any participation in it, even while alive and present, but our affection and regard to him?

These, and a thousand other instances, are marks of a general benevolence in human nature, where no *real* interest binds us to the object. And how an *imaginary* interest known and avowed for such can be the origin of any passion or emotion seems difficult to explain. No satisfactory hypothesis of this kind has yet been discovered, nor is there the smallest probability that the future industry of men will ever be attended with more favourable success.

But farther, if we consider rightly of the matter, we shall find that the hypothesis which allows of a disinterested benevolence distinct from self-love has really more *simplicity* in it, and is more conformable to the analogy of nature, than that which pretends to resolve all friendship and humanity into this latter principle. There are bodily wants or appetites acknowledged by everyone which necessarily precede all sensual enjoyment, and carry us directly to seek possession of the object. Thus, hunger and thirst have eating and drinking for their end; and from the gratification of these primary appetites arises a pleasure which may

¹ Mons. Fontenelle.

become the object of another species of desire or inclination that is secondary and interested. In the same manner there are mental passions by which we are impelled immediately to seek particular objects, such as fame, or power, or vengeance, without any regard to interest, and when these objects are attained a pleasing enjoyment ensues as the consequence of our indulged affections. Nature must, by the internal frame and constitution of the mind, give an original propensity to fame ere we can reap any pleasure from that acquisition, or pursue it from motives of self-love and desire of happiness. If I have no vanity, I take no delight in praise; if I be void of ambition, power gives me no enjoyment; if I be not angry, the punishment of an adversary is totally indifferent to me. In all these cases there is a passion which points immediately to the object, and constitutes it our good or happiness, as there are other secondary passions which afterwards arise and pursue it as a part of our happiness when once it is constituted such by our original affections. Were there no appetite of any kind antecedent to self-love, that propensity could scarcely ever exert itself, because we should, in

that case, have felt few and slender pains or pleasures, and have little misery or happiness to avoid or to pursue.

Now, where is the difficulty in conceiving that this may likewise be the case with benevolence and friendship, and that from the original frame of our temper we may feel a desire of another's happiness or good, which, by means of that affection, becomes our own good, and is afterwards pursued from the combined motives of benevolence and self-enjoyments? Who sees not that vengeance, from the force alone of passion, may be so eagerly pursued as to make us knowingly neglect every consideration of ease, interest, or safety, and, like some vindictive animals, infuse our very souls into the wounds we give an enemy; and what a malignant philosophy must it be that will not allow to humanity and friendship the same privileges which are indisputably granted to the darker passions of enmity and resentment! Such a philosophy is more like a satire than a true delineation or description of human nature, and may be a good foundation for paradoxical wit and railery, but is a very bad one for any serious argument or reasoning.

¹ "Animasque in vultu premit." Virg. "Dum alter exultat, dum se letat," says Seneca of anger (*De Ira*, l. i.).

APPENDIX III.

SOME FARTHER CONSIDERATIONS WITH REGARD TO JUSTICE

THE intention of this Appendix is to give some more particular explication of the origin and nature of justice, and to mark some differences between it and the other virtues.

The social virtues of humanity and benevolence exert their influence immediately by a direct tendency or instinct, which chiefly keeps in view the simple object moving the affections, and comprehends not any scheme or system, nor the consequences resulting from the con-

currence, imitation, or example of others. A parent flies to the relief of his child, transported by that natural sympathy which actuates him, and which affords no leisure to reflect on the sentiments or conduct of the rest of mankind in like circumstances. A generous man cheerfully embraces an opportunity of serving his friend, because he then feels himself under the dominion of the beneficent affections; nor is he concerned whether any other person in the universe was

ever before actuated by such noble motives, or will ever afterwards prove their influence. In all these cases the social passions have in view a single individual object, and pursue the safety or happiness alone of the person loved and esteemed. With this they are satisfied in this they acquiesce. And is the good resulting from their benign influence in itself complete and entire, it also excites the moral sentiment of approbation without any reflection on further consequences, and without any more enlarged views of the concurrence or imitation of the other members of society. On the contrary, were the generous friend or disinterested patriot to stand alone in the practice of beneficence, this would rather enhance his value in our eyes and join the praise of unity and novelty to his other more exalted merits.

The case is not the same with the social virtues of justice and fidelity. They are highly useful or indeed absolutely necessary to the well being of mankind but the benefit resulting from them is not the consequence of every individual single act, but arises from the whole scheme or system concurred in by the whole or the greater part of the society. General peace and order are the attendants of justice, or a general abstinence from the possessions of others but a particular regard to the particular right of one individual citizen may frequently considered in itself, be productive of pernicious consequences. The result of the individual acts is here in many instances directly opposite to that of the whole system of actions, and the former may be extremely hurtful, while the latter is to the highest degree advantageous. Riches inherited from a parent are in a bad man's hand the instrument of mischief. The right of succession may in one instance be hurtful. Its benefit arises only from the observance of the general rule, and it is sufficient if compensation be thereby made for all the ills and inconveniences which flow from particular characters and situations.

Cyrus, young and inexperienced considered only the individual case before him, and reflected on a limited fitness and convenience when he assigned the long coat to the tall boy and the short coat to the other of smaller size. His governor instructed him better, while he pointed out more enlarged views and consequences, and informed his pupil of the general, inflexible rules necessary to

support general peace and order in society.

The happiness and prosperity of mankind arising from the social virtue of benevolence and its sub-divisions may be compared to a wall built by many hands which still rises by each stone that is heaped upon it and receives increase proportioned to the diligence and care of each workman. The same happiness, raised by the social virtue of justice and its sub-divisions may be compared to the building of a vault where each individual stone would of itself fall to the ground, nor is the whole fabric supported but by the mutual assistance and combination of its ever ponding parts.

All the laws of nature which regulate property as well as all civil laws, are general and require alone some essential circumstances of the case without taking into consideration the characters situations and connections of the person concerned or any particular consequences which may result from the determination of these laws in any particular case which often. They do provide without scruple a beneficent man of all his possessions, if acquired by mistake without a good title in order to be to them on a selfish miser who has already heaped up immense stores of superfluous riches. Public utility requires that property should be regulated by general inflexible rules and though such rules are adopted as best serve the same end of public utility it is impossible for them to prevent all particular hardships or make beneficial consequences result from every individual case. It is sufficient if the whole plan or scheme be necessary to the support of civil society, and if the balance of good in the man do thereby preponderate much above that of evil. Even the general laws of the universe though planned by infinite wisdom, cannot exclude all evil or inconvenience in every particular operation.

It has been asserted by some that justice arises from human conventions, and proceeds from the voluntary choice, consent, or combination of mankind. If by *convention* be here meant a *promise* (which is the most usual sense of the word) nothing can be more absurd than this position. The observance of promises is itself one of the most considerable parts of justice, and we are not surely bound to keep our word because we have given our word to keep it. But if by convention be meant a sense of common interest, which

sense each man feels in his own breast, which he remarks in his fellows, and which carries him, in concurrence with others, into a general plan or system of actions which tends to public utility; it must be owned that in this sense justice arises from human conventions. For if it be allowed (what is, indeed, evident) that the particular consequences of a particular act of justice may be hurtful to the public as well as to individuals, it follows that every man in embracing that virtue must have an eye to the whole plan or system, and must expect the concurrence of his fellows in the same conduct and behaviour. Did all his views terminate in the consequences of each act of his own, his benevolence and humanity, as well as his self-love, might often prescribe to him measures of conduct very different from those which are agreeable to the strict rules of right and justice.

Thus two men pull the oars of a boat by common convention for common interest, without any promise or contract; thus gold and silver are made the measures of exchange; thus speech and words and language are fixed by human convention and agreement. Whatever is advantageous to two or more persons if all perform their part, but what loses all advantage if only one perform, can arise from no other principle. There would otherwise be no motive for any one of them to enter into that scheme of conduct.*

The word *natural* is commonly taken in so many senses, and is of so loose a signification, that it seems vain to dispute whether justice be natural or not. If self-love, if benevolence, be natural to man, if reason and forethought be also natural, then may the same epithet be

applied to justice, order, fidelity, property, society. Men's inclination, their necessities, lead them to combine; their understanding and experience tell them that this combination is impossible where each governs himself by no rule and pays no regard to the possessions of others; and from these passions and reflections conjoined, as soon as we observe like passions and reflections in others, the sentiment of justice throughout all ages has infallibly and certainly had place to some degree or other in every individual of the human species. In so sagacious an animal what necessarily arises from the exertion of his intellectual faculties may justly be esteemed natural.[†]

Among all civilised nations it has been the constant endeavour to remove everything arbitrary and partial from the decision of property, and to fix the sentence of judges by such general views and considerations as may be equal to every member of society. For, besides that nothing could be more dangerous than to accustom the bench, even in the smallest instance, to regard private friendship or enmity; it is certain that men, where they imagine that there was no other reason for the preference of their adversary but personal favour, are apt to entertain the strongest ill-will against the magistrates and judges. When natural reason, therefore, points out no fixed view of public utility by which a controversy of property can be decided, positive laws are often framed to supply its place and direct the procedure of all courts of judicature. Where these, too, fail, as often happens, precedents are called for; and a former decision, though given itself without any sufficient reason, justly becomes a sufficient reason for a new decision. If direct laws and precedents be wanting, imperfect and indirect ones are brought in aid, and the controverted case is ranged under them, by analogical reasonings and comparisons and similitudes and correspondences which are

* This theory concerning the origin of property, and consequently of justice, is, in the main, the same with that hinted at and adopted by Grotius: "Hinc discimus, quae fuerit causa, ob quam a primæva communiōe rerum primo nobilitatem, deinde et immobilium discessum est: nimirum quod cum non contenti homines vesi sponte natis, antra habitare, corpore aut nudo agere, aut corticibus arborum ferarumque pellibus vestito, vitæ genus exquisitius delegissent, industria opus fuit, quam singuli rebus singulis adhiberent. Quo minus autem fructus in commune conferrentur, primum obstitit locorum, in quæ homines discesserunt, distantia, deinde justitiæ et amoris defectus, per quem fiebat, ut nec in labore, nec in consumptione fructuum, quæ debebat, æqualitas servaretur. Simul discimus quomodo res in proprietatem ierint: non animi actu solo, neque cum scire alii poterant, quid aliis suum esse vellet, ut eo abstinerent, et idem velle plures poterant: sed pacto quodam aut expresso, ut per divisionem, aut tacito, ut per occupationem."—*De Jure Belli et Pacis*, lib. ii., cap. 2, § 2, art. 4 and 5.

often more fanciful than real. In general it may safely be affirmed that jurisprudence is, in this respect, different from all the sciences, and that in many of its nicer questions there cannot properly be said to be truth or falsehood on either side. If one pleader bring the case under any former law or precedent by a refined analogy or comparison, the opposite pleader is not at a loss to find an opposite analogy or comparison; and the preference given by the judge is often founded more on taste and imagination than on any solid argument. Public utility is the general object of all courts of judicature, and this utility, too, requires a stable rule in all controversies; but where several rules, nearly equal and indifferent, present themselves it is a very slight turn of thought which fixes the decision in favour of either party.*

* That there be a separation or distinction of possessions, and that this separation be steady and constant: this is absolutely required by the interests of society, and hence the origin of justice and property. What possessions are assigned to particular persons; this is, generally speaking, pretty indifferent, and is often determined by very frivolous views and considerations. We shall mention a few particulars. Were a society formed among several independent members, the most obvious rule which could be agreed on would be to annex property to *present* possession and leave everyone a right to what he at present enjoys. The relation of possession which takes place between the person and the object naturally draws on the relation of property. For a like reason, occupation or first possession becomes the foundation of property. Where a man bestows labour and industry upon any object which before belonged to nobody—as in cutting down and shaping a tree, in cultivating a field, etc.—the alteration which he produces causes a relation between him and the object, and naturally engages us to annex it to him by the new relation of property. This cause here concurs with the public utility, which consists in the encouragement given to industry and labour. Perhaps, too, private humanity towards the possessor concurs, in this instance, with the other motives, and engages us to leave with him what he has acquired by his sweat and labour, and what he has flattered himself in the constant enjoyment of. For, though private humanity can by no means be the origin of justice—since the latter virtue so often contradicts the former—yet, when the rule of separate and constant possession is once formed by the indispensable necessities of society, private humanity and an aversion to the doing a hardship to another may, in a particular instance, give rise to a particular rule of property. I am much inclined to think that the right of succession or inheritance much depends on those connections of the imagination, and that the relation to a former proprietor begetting a relation to the object is the cause why the property is transferred to a man after the death of his kinsman. It is true, industry is more encouraged by the transference of possession to children or near relations; but this consideration will only have place in a cultivated society, whereas the right of succession is regarded as an among the greatest barbarians. Acquisition of

We may just observe, before we conclude this subject, that after the laws of justice are fixed by views of general utility, the injury, the hardship, the harm, which result to any individual from a violation of them enter very much into consideration, and are a great source of that universal blame which attends every wrong or iniquity. By the laws of society this coat, this horse, is mine, and ought to remain perpetually in my possession. I reckon on the secure enjoyment of it; by depriving me of it you disappoint my expectations and doubly displease me, and offend every bystander. It is a public wrong so far as the rules of equity are violated; it is a private harm so far as an individual is injured. And though the second consideration could have no place were not the former previously established—for otherwise the distinction of *mine* and *thine* would be unknown in society—yet there is no question but the regard to general good is much enforced by the respect to particular. What injures the community without hurting any individual is often more lightly thought of. But where the greatest public wrong is also conjoined with a considerable private one, no wonder the highest disapprobation attends so iniquitous a behaviour.

property by *accession* can be explained no way but by having recourse to the relations and connections of the imagination. The property of rivers, by the laws of most nations, and by the natural turn of our thoughts, is attributed to the proprietors of their banks, excepting such vast rivers as the Rhine or the Danube, which seem too large to follow as an accession to the property of the neighbouring fields. Yet even these rivers are considered as the property of that nation through whose dominions they run; the idea of a nation being of a suitable bulk to correspond with them, and bear them such a relation in the fancy. The accessions which are made to land bordering upon rivers follow the land, say the civilians, provided it be made by what they call *alluvion*—that is, insensibly and imperceptibly—which are circumstances that assist the imagination in the conjunction. Where there is any considerable portion torn at once from one bank and added to another, it becomes not *his* property whose land it falls on till it unite with the land, and till the trees and plants have spread their roots into both. Before that the thought does not sufficiently join them. In short, we must ever distinguish between the necessity of a separation and constancy in men's possession, and the rules which assign particular objects to particular persons. The first necessity is obvious, strong, and invincible; the latter may depend on a public utility more light and frivolous, on the sentiment of private humanity and aversion to private hardship, on positive laws, on precedents, analogies, and very fine connections and turns of the imagination.

APPENDIX IV.

OF SOME VERBAL DISPUTES

NOTHING is more usual than for philosophers to encroach upon the province of grammarians, and to engage in disputes of words while they imagine that they are handling controversies of the deepest importance and concern. It was in order to avoid altercations so frivolous and endless that I endeavoured to state, with the utmost caution, the object of our present inquiry, and proposed simply to collect, on the one hand, a list of those mental qualities which are the object of love or esteem, and form a part of personal merit; and, on the other hand, a catalogue of those qualities which are the object of censure or reproach, and which detract from the character of the person possessed of them, subjoining some reflections concerning the origin of these sentiments of praise or blame. On all occasions where there might arise the least hesitation I avoided the terms *virtue* and *vice*, because some of those qualities which I classed among the objects of praise receive, in the English language, the appellation of *talents* rather than of virtues, as some of the blamable or censurable qualities are often called *defects* rather than vices. It may now, perhaps, be expected that before we conclude this moral inquiry we should exactly separate the one from the other, should mark the precise boundaries of virtues and talents, vices and defects, and should explain the reason and origin of that distinction. But, in order to excuse myself from this undertaking, which would at last prove only a grammatical inquiry, I shall subjoin the four following reflections, which shall contain all that I intend to say on the present subject:—

First, I do not find that in the English, or any other modern tongue, the boundaries are exactly fixed between virtues and talents, vices and defects, or that a precise definition can be given of the one as contra-distinguished from the other. Were we to say, for instance, that the estimable qualities alone which are voluntary are entitled to the appella-

tion of virtues, we should soon recollect the qualities of courage, equanimity, patience, self-command, with many others, which almost every language classes under this appellation, though they depend little, or not at all, on our choice. Should we affirm that the qualities alone which prompt us to act our part in society are entitled to that honourable distinction, it must immediately occur that these are indeed the most valuable qualities, and are commonly denominated the *social* virtues, but that this very epithet supposes that there are also virtues of another species. Should we lay hold of the distinction between *intellectual* and *moral* endowments, and affirm the last alone to be the real and genuine virtues, because they alone lead to action, we should find that many of those qualities usually called intellectual virtues, such as prudence, penetration, discernment, discretion, had also a considerable influence on conduct. The distinction between the *heart* and the *head* may also be adopted. The qualities of the first may be defined such as in their immediate exertion are accompanied with a feeling of sentiment, and these alone may be called the genuine virtues; but industry, frugality, temperance, secrecy, perseverance, and many other laudable powers or habits, generally styled virtues, are exerted without any immediate sentiment in the person possessed of them, and are only known to him by their effects. It is fortunate, amid all this seeming perplexity, that the question, being merely verbal, cannot possibly be of any importance. A moral-philosophical discourse needs not enter into all these caprices of language, which are so variable in different dialects and in different ages of the same dialect. But, on the whole, it seems to me that, though it is always allowed that there are virtues of many different kinds, yet when a man is called *virtuous*, or is denominated a man of *virtue*, we chiefly regard his social qualities, which are, indeed, the most valuable.

is, at the same time, certain that any remarkable defect in courage, temperance, economy, industry, understanding, dignity of mind, would bereave even a very good-natured, honest man of this honourable appellation. Who did ever say, except by way of irony, that such a one was a man of great virtue, but an egregious blockhead?

But, *secondly*, it is no wonder that languages should not be very precise in marking the boundaries between virtues and talents, vices and defects, since there is so little distinction made in our internal estimation of them. It seems, indeed, certain that the *sentiment* of conscious worth, the self-satisfaction proceeding from a review of a man's own conduct and character—it seems certain, I say, that this sentiment, which, though the most common of all others, has no proper name in our language, arises from the endowments of courage and capacity, industry and ingenuity, as well as from any other mental excellences. Who, on the other hand, is not deeply mortified with reflecting on his own folly and dissoluteness, and feels not a secret sting or compunction whenever his memory presents any past occurrence where he behaved with stupidity of all manners? No time can efface the cruel ideas of a man's own foolish conduct or of affronts, which cowardice or impudence has brought upon him. They still haunt his solitary hours, damp his most inspiring thoughts, and show him, even to himself, in the most contemptible and most odious colours imaginable.

What is there, too, we are more anxious to conceal from others than such blunders, infirmities, and weaknesses, or more dread to have exposed by ruffery and satire? And is not the chief object of vanity our bravery or learning, our wit or breeding, our eloquence or address, our taste or abilities? These we display with care, if not with ostentation, and we commonly show more ambition of excelling in them than even in the social virtues themselves, which we, in reality, of such superior excellence. Good nature

and honesty, especially the latter, are so indispensably required that, though the greatest censure attends any violation of these duties, no eminent praise follows such common instances of them as seem essential to the support of human society. And hence the reason, in my opinion, why, though men often extol so liberally the qualities of their heart, they are shy in commending the endowments of their head, because the latter virtues, being supposed more rare and extraordinary, are observed to be the more usual objects of pride and self-conceit, and when boasted of beget a strong suspicion of these sentiments.

It is hard to tell whether you hurt a man's character most by calling him a knave or a coward, and whether a beastly glutton or drunkard be not as odious and contemptible as a selfish, ungenerous miser. Give me my choice, and I would rather for my own happiness and self-enjoyment, have a friendly humane heart than possess all the other virtues of Demosthenes and Philip united, but I would rather pass with the world for one endowed with extensive genius and intrepid courage, and should thence expect stronger instances of general applause and admiration. The figure which a man makes in life, the reception which he meets with in company, the esteem paid him by his acquaintance—all these advantages depend as much upon his good sense and judgment as upon any other part of his character. Had a man in the best intentions in the world, and were the furthest removed from all injustice and violence he would never be able to make himself be much regarded without a moderate share, at least, of parts and understanding.

What is it, then, we can here dispute about? If sense and courage, temperance and industry, wisdom and knowledge, confessedly form a considerable part of *personal merit*, if a man possessed of these qualities is both better satisfied with himself and better entitled to the good-will, esteem, and services of others than one entirely destitute of them; if, in short, the *sentiments* are similar which arise from these endowments and from the social virtues—is there any reason for being so extremely scrupulous about a *word*, or disputing whether they be entitled to the denomination of virtues? It may, indeed, be pretended that the sentiment of approbation which those

The term pride is commonly taken in a bad sense; but this sentiment seems indifferently and may be good or bad. According to it, it is well or ill, and according to the other circumstances accompany it. The French express this sentiment by the term *amour propre*, but as they also use the word *amour* for love, by the same term, it thence arises a great confusion in La Rochefoucauld and many of their moral writers.

accomplishments produce, besides its being *inferior*, is also somewhat *different* from that which attends the virtues of justice and humanity. But this seems not a sufficient reason for ranking them entirely under different classes and appellations. The character of Cato and that of Cato, as drawn by Sallust, are both of them virtuous in the strictest and most limited sense of the word, but in a different way; nor are the sentiments entirely the same which arise from them. The one produces love, the other esteem, the one is amiable, the other awful, we should wish to meet the one character in a friend; the other we should be ambitious of in ourselves. In like manner the approbation which attends temperance or industry or frugality may be somewhat different from that which is paid to the social virtues without making them entirely of a different species. And indeed, we may observe that these endowments, more than the other virtues produce not all of them the same kind of approbation. Good sense and genius excite esteem and regard, wit and humour excite love and affection.¹

Most people, I believe will naturally without premeditation assent to the definition of the elegant and judicious poet

Virtue (for more good nature is a fool)
Is sense and spirit with humanity

What pretensions has a man to our generous assistance or good offices who has dissipated his wealth in profuse expenses, idle vanities, chimerical pro-

jects, dissolute pleasures or extravagant gaming? These vices (for we scruple not to call them such) bring misery unpitied and contempt on every one addicted to them.

Atticus, a wise and prudent prince, fell into a passion which cost him his crown and life after having used every reasonable precaution to guard himself against it. On that account, says the historian he left the object of regard and compassion, his brethren alone of hatred and contempt.

The precipitate flight and improvident negligence of Pompey at the beginning of the civil wars appeared such notorious blunders to Cicero is quite pallid his friendship towards that great man *in the same manner*, says he *as want of deliberation and discretion in a mistress is a fault to alienate our affections*. But he expresses himself where he talks of the character of a philosopher but in that of a statesman and man of the world to be friend Atticus.²

But the same Cicero in imitation of all the ancient moralists when he reasons of a philosopher endures very much his ideas of virtue and comprehends every laudible quality an endowment of the mind under that honourable appellation. This leads to the *third* reflection which we proposed to make to wit, that the ancient moralists, the best models, made no remarkable distinction among the different excellencies and defects, but treated all alike under the appellation of virtues and vice and made them indiscriminately the object of their moral reasoning. The *prudens* explained in Cicero's *Offices* is that sagacity which lead to the discovery of truth and preserves us from error and mistake. *Magnanimitas*, *temperantia*, *decus*, are there also to be largely discoursed of. And as that eloquent moralist followed the common received division of the four cardinal virtues, our social duties form but one head in the general distribution of his subject.³

1. *De Officiis*, lib. 1, cap. 2.

2. *Ibid.*, lib. 1, cap. 1.

3. The following passage of Cicero is worth quoting as being the first clear and express to our purpose that anything verbal is imagined and in a dispute of scholarly verbal must on account of the author's ratio in which there can be no error. *Virtus autem quoniam est per se species laudabilis quod nihil laudari potest, tamen habet plures quoniam diversis aliis laudationem aptior aliæ virtutes, quæ videntur in moribus*

* Love and esteem naturally arise from similar causes. The qualities which produce both are such as communicate pleasure. But where this pleasure is severe and serious, or where its object is great and makes a strong impression, where it produces any degree of humility and awe, in all these cases the passion which arises from the pleasure is properly denominated esteem rather than love. Benevolence attends both but is connected with love in a more eminent degree. There is to be still a stronger mixture of pride in contempt than of humility in esteem, and the reason why I may be difficult to our who studied accurately the passions. All these various mixtures and compositions and appearances of sentiment form every curious subject of speculation but are wide of our present purpose. Throughout this inquiry we always consider in general what qualities are a subject of praise or of censure without entering into all the minute distinctions of sentiment which excite. It is evident that what ever is contemned is also disliked, as well as what is hated, and we here endeavour to take objects according to their most simple views and appearances. These sciences are but too apt to appear abstract to common readers, even with all the precautions which we can take to clear them from superfluous speculations and bring them down to every capacity.

¹ *The Art of Preserving Health*, book 4

We need only peruse the titles of chapters in Aristotle's *Ethics* to be convinced that he ranks courage, temperance, magnificence, magnanimity, modesty, prudence, and a manly openness among the virtues, as well as justice and friendship.

To *sustain* and to *abstain*—that is, to be patient and continent—appeared to some of the ancients a summary comprehension of all morals.

Epictetus has scarcely ever mentioned the sentiment of humanity and compassion, but in order to put his disciples on their guard against it. The virtue of the Stoics seems to consist chiefly in a firm temper and a sound understanding. With them, as with Solomon and the eastern moralists, folly and wisdom are equivalent to vice and virtue.

"Men will praise thee," says David,¹ "when thou dost well unto thyself." "I hate a wise man," says the Greek poet, "who is not wise to himself."²

Plutarch is no more cramped by systems in his philosophy than in his history. Where he compares the great men of Greece and Rome he fairly sets in opposition all their blemishes and accomplishments of whatever kind, and omits nothing considerable which can either depress or exalt their characters. His moral discourses contain the same free and natural censure of men and manners.

The character of Hannibal, as drawn by Livy,³ is esteemed partial, but allows him many eminent virtues. Never was there a genius, says the historian, more equally fitted for those opposite offices of commanding and obeying, and it were, therefore, difficult to determine whether

he rendered himself *dearer* to the *gen*, so or to the army. To none would *ugh* the entrust more willingly the *cr*, violation dangerous enterprise; unde *ise* follows soldiers discover more cour *m at eam* fidence. Great boldness in facing danger, great prudence in the midst of it. No labour could fatigue his body or subdue his mind. Cold and heat were indifferent to him; meat and drink he sought as supplies to the necessities of nature, not as gratifications of his voluptuous appetites. Waking or rest he used indiscriminately by night or by day. These great virtues were balanced by great vices, inhuman cruelty, perfidy more than *Punic*—no truth, no faith, no regard to oaths, promises, or religion.

The character of Alexander the Sixth, to be found in Guicciardini,⁴ is pretty similar, but juster; and is a proof that even the moderns, where they speak naturally, hold the same language with the ancients. In this pope, says he, there was a singular capacity and judgment; admirable prudence; a wonderful talent of persuasion; and in all momentous enterprises a diligence and dexterity incredible. But these *virtues* were infinitely overbalanced by his *vices*—no faith, no religion, insatiable avarice, exorbitant ambition, and a more than barbarous cruelty.

Polybius,⁵ reprehending Timæus for his partiality against Agathocles, whom he himself allows to be the most cruel and impious of all tyrants, says if he took refuge in Syracuse, as asserted by that historian, flying the dirt and smoke and toil of his former profession of a potter, and if, proceeding from such slender beginnings, he became master, in a little time, of all Sicily, brought the Carthaginian State into the utmost danger, and at last died in old age, and in possession of sovereign dignity—must he not be allowed something prodigious and extraordinary, and to have possessed great talents and capacity for business and action? His historian, therefore, ought not to have alone related what tended to his reproach and infamy, but also what might redound to his praise and honour.

In general, we may observe that the distinction of voluntary or involuntary was little regarded by the ancients in their moral reasonings, where they frequently treated the question as *very*

quandam comitate ac beneficentia posita; aliae quae in ingenii aliqua facultate, aut animi magnitudine ac robore. Nam clementia, iustitia, benignitas, fides, fortitudo in periculis communibus, iucunda est auditu in laudationibus. Omnes enim hae virtutes non tam ipsi, qui eas in se habent, quam ceteri hominum fructuosae putantur. Sapientia et magnitudo animi, quae omnes res humanae tenues et pro nihilo putantur, et in cogitando vis quaedam ingenii, et ipsa eloquentia admirationis habet non minus, iucunditatis minus. Ipsos enim magis videntur, quos laudamus, quam illos, apud quos laudamus orare ac tueri: sed tamen in laudanda iungenda sunt etiam hae genera virtutum. Ferunt enim aures hominum, cum illa quae iucunda et grata, tum etiam illa, quae mirabilia sunt in virtute, et in cogitando vis quaedam ingenii, et ipsa eloquentia admirationis habet non minus, iucunditatis minus. Ipsos enim magis videntur, quos laudamus, quam illos, apud quos laudamus orare ac tueri: sed tamen in laudanda iungenda sunt etiam hae genera virtutum. Ferunt enim aures hominum, cum illa quae iucunda et grata, tum etiam illa, quae mirabilia sunt in virtute, et in cogitando vis quaedam ingenii, et ipsa eloquentia admirationis habet non minus, iucunditatis minus. Ipsos enim magis videntur, quos laudamus, quam illos, apud quos laudamus orare ac tueri: sed tamen in laudanda iungenda sunt etiam hae genera virtutum.

¹ Ps. lxxviii. ² Euripides. ³ Livy. ⁴ Guicciardini. ⁵ Polybius.

being *whether virtue could be taught* from that heaviness, levity, anxiety, justice and *meanly*, and many other qualities of the mind, might appear ridiculous and deformed, contemptible and odious, though independent of the will. Nor could it be supposed, at all times, in every man's power to attain every kind of mental more than of exterior beauty.

And here there occurs the *fourth* reflection which I purposed to make in suggesting the reason why modern philosophers have often followed a course in their moral inquiries so different from that of the ancients. In later times philosophy of all kinds, especially ethics, have been more closely united with theology than ever they were observed to be among the heathens; and as this latter science admits of no terms of composition, but bends every branch of knowledge to its own purpose, without much regard to the phenomena of nature or to the unbiassed sentiments of the mind, hence reasoning, and even language, have been warped from their natural course, and distinctions have been endeavoured to be established where the difference of the objects was, in a manner, imperceptible. Philosophers, or rather divines under that

disguise, treating all morals as on a like footing with civil laws, guarded by the sanctions of reward and punishment, were necessarily led to render this circumstance of *voluntary* or *involuntary* the foundation of their whole theory. Every one may employ *terms* in what sense he pleases; but this, in the meantime, must be allowed, that *sentiments* are every day experienced of blame and praise, which have objects beyond the dominion of the will or choice, and of which it behoves us, if not as moralists, as speculative philosophers at least, to give some satisfactory theory and explication.

A blemish, a fault, a vice, a crime—these expressions seem to denote different degrees of censure and disapprobation, which are, however, all of them, at the bottom, pretty nearly all the same kind of species. The explication of one will easily lead us into a just conception of the others; and it is of greater consequence to attend to things than to verbal appellations. That we owe a duty to ourselves is confessed even in the most vulgar system of morals; and it must be of consequence to examine that duty in order to see whether it bears any affinity to that which we owe to society. It is probable that the approbation attending the observance of both is of a similar nature, and arises from similar principles, whatever appellation we may give to either of these excellences.

* Vid. Plato in *Meno*, *Symposium*, *De Virtute Sapientie*, cap. 31. Socrates hoc uero, *Verbalis doctrina praeferenda non est*. *Epist.*, lib. I. cap. 18. *Eschylus*, *Socraticus*, Dial. 1.

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